Men-at-Arms

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Forces of the Hanseatic League

13th–15th Centuries

David Nicolle • Illustrated by Gerry & Sam Embleton

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Men-at-Arms . 494

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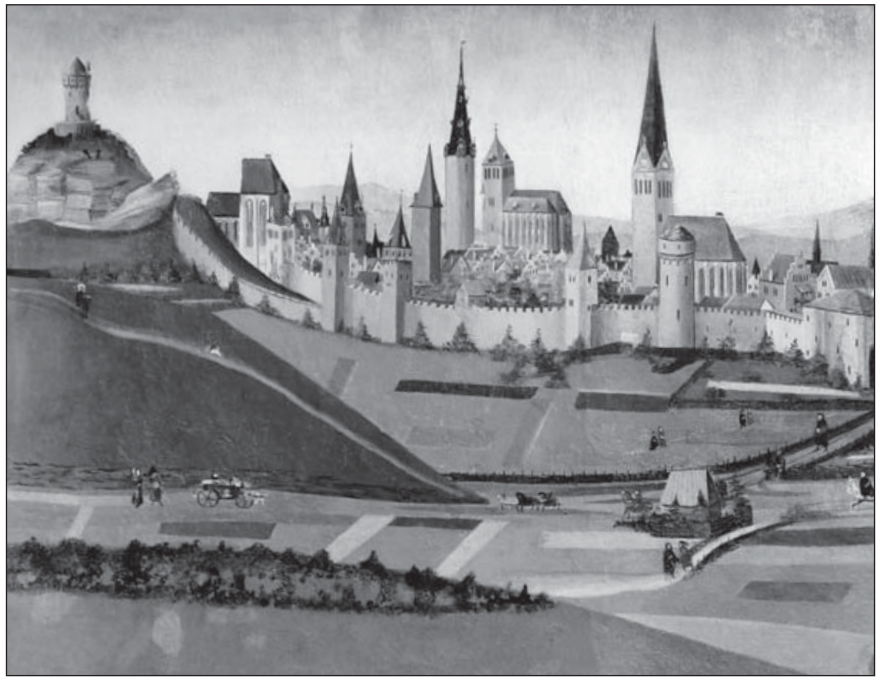

David Nicolle . Illustrated by Gerry & Sam Embleton

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FORCES OF THE HANSEATIC LEAGUE 13TH–15TH CENTURIES

HISTORICAL BACKGROUND

Rivalry between Germanic- and Slavic-speaking peoples was a feature of the south-western coasts of the Baltic Sea during the centuries preceding the emergence of the Hanseatic League in the mid-13th century. Quite who lived where before and during the early medieval Age of Migrations, and from then until the appearance of written sources around the 9th and 10th centuries, remains a complex and still sensitive issue.

As German-speaking peoples expanded into what is now north-eastern Germany during the Middle Ages they absorbed the existing Slav-speaking populations, with little expulsion once these conquests were consolidated. West of the River Elbe, the Saxons had been conquered and forcibly converted to Christianity by Charlemagne in the late 8th century. This process was accompanied by the establishment of towns as trading and administrative centres, and at least two of these would later join the Hanseatic League.

A German merchant outside the gate of Riga, with a knight perhaps representing the garrison, depicted on a carved and painted wooden panel. This piece dates from 1360–70, the decade when the Hanseatic League came to its maturity with the negotiation of the Confederation of Cologne. (*in situ* Church of St Nikolai, Stralsund)

It is sometimes said that the Slavic population of lands between the Elbe and the Baltic was 'sparse', yet archaeology points to a thriving culture from the 7th to 12th centuries. Nor did the Elbe mark a clear linguistic frontier; the region north of its lowest reaches was inhabited by Saxons and Frisians, whose neighbours were the culturally related though, until the later 10th century, still pagan Danes. The pagan Slav Obodrites had, in fact, been given the lands immediately north of the lower Elbe by Charlemagne in AD 804, following that Christian Emperor's deportation of the existing Saxon population. Since then, Obodrites and associated tribes living closest to the Elbe had been annexing other Slavic tribes.

Several of these Slav tribes, together known as Wends, accepted the overlordship of Christian German emperors during the 10th century. Although this brief accommodation collapsed with a Slav uprising in AD 983, by that time the Wendish Slavs included Christians, particularly amongst their aristocracies. Meanwhile, there were significant differences between the military traditions of the main populations of the south-western Baltic region. To the south, Germany was now within the heavily armoured cavalry tradition of western Europe; to the north, infantry still dominated warfare in Denmark; and to the east, light cavalry traditions predominated in Slavic regions.

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Northern or Citadel Gate *(Burgtor)* into the old city of Lübeck. First constructed in the 13th century, this was redesigned in the 15th century. (Author's photograph)

As yet, Baltic naval warfare remained largely a matter of coastal raiding, in which the Slavic Wends proved highly effective, probably using ships similar to those of the Vikings. Wendish coastal assaults were one factor behind the launching of the so-called Wendish Crusade in 1147, which preceded the wider-ranging Northern Crusades (1198–*c.*1290, depending upon the chosen definition of a crusade). By then the Saxons had already revived their own eastwards expansion into Slav territory. On the other side, Henry, the Christian *Knes* or leader of the Obodrites (1093–1127), was recruiting both Saxon and Danish mercenaries, as well as being credited with expanding the Baltic port of 'old Lübeck'.

The Baltic Crusade would be characterized by singularly ruthless campaigns, enforced conversion to Christianity, and sometimes the slaughter of those who resisted. Paradoxically, however, its initial phases seem to have been less brutal than the later. A leading figure on the Christian side was Duke Henry the Lion of Saxony (1129–1195), who had fought in the Wendish Crusade as a youth, then again against Slavs east of the Elbe in the 1150s and 1160s. However, the chronicler Helmold complained that 'in all the campaigns the young man has fought thus far against Slavia, there was no mention of Christianity, but only of money. The Slavs still sacrifice to their demons and not to God'[1] . But eventually even Helmold recognized that Henry's policy of establishing bishoprics and encouraging Christian colonization while also allowing Slav converts to retain many traditional rights and customs resulted in cooperation and assimilation.

The importance of 12th-century towns

During the medieval period German regionalism was even stronger than today, with the northern lowlands having their own distinct languages of Saxon and Frisian. Efforts by Imperial central government to unify provincial and legal frameworks, while attempting to impose a single tongue (Middle High German) as the official language, failed. In fact, as Germany colonized to the east, the 12 dialects of the 12th century grew to 18 by the close of the 15th century. Meanwhile, the importance of towns can hardly be overstated, with the chief Hanseatic centre of Lübeck being just one example.

Traditionally, 'new' Lübeck was founded by Count Adolph II of Schaumburg-Holstein in 1143 to replace Slav Liubice (Old Lübeck) some kilometres down the Trave river. The site was already occupied, and had a Slavic fortification at its northern end. In 1158 Lübeck was transferred to Duke Henry the Lion of Saxony (and, from 1156, of Bavaria), being central to his expansion plans. Thereafter the city played a crucial role as a logistical centre during the Baltic Crusade; it was handed over to Imperial control in 1180, and soon had a ruling council of 20 men, mostly merchants. Raised to the status of a Free Imperial City

1 Helmold, tr. F.J. Tschan, *The Chronicle of the Slavs by Helmold, Priest of Bosau* (New York, 1935) pp.238–40

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in 1226, Lübeck would remain a separate political entity until 1937, when Hitler ended its 711 years of autonomy. (Essentially, Free Cities answered directly to the Emperor rather than to regional feudal rulers.)

The German towns which later came together in the Hanseatic League already had significant military potential; for instance, Bremen had a stone circuit-wall as early as 1032. Further south, Cologne even challenged the might of Emperor Henry V in 1114, when its people

> called together under their standard great numbers of their most valiant young men, crossed the Rhine with a strong force of bowmen, and, drawing themselves up in battle array, awaited the attack of the emperor with stout hearts... There was in the emperor's army a corps whose armour was made of horn and so could not be pierced by iron. When these removed their armour... in order to get a little air, for it was very hot, they were immediately covered with arrows, and all but six fell on the spot.[2]

The 12th-century Rhineland cities were stronger than those of the north, and Lübeck was still vulnerable to Slav attack. After Niclot of the Obodrites had attacked it on 26 June 1147, Henry of Saxony decided to hit back, but the Obodrites struck first:

> At that time there lived in Lübeck a venerable priest named Ethelo. His house was near the bridge that spans the River Wakenitz toward the south. It so happened that he had had a very long ditch dug to conduct a stream of water from the river which was some distance off. In hurrying forward to take possession of the bridge the Slavic ambuscaders were impeded by the ditch and lost their way in looking for a crossing. When they who were in the priest's house saw this happening, they set up a hue and cry, and the terrified priest rushed desperately upon the warriors. The Slavic troop was already in the middle of the span [of the bridge] and had nearly reached the portal when the priest, dispatched by God, very quickly lifted the bridge by the chain and in this manner averted the dangers which had been plotted.[3]

***Holstentor* or main western gate of Lübeck, built in 1477 and restored in the late 19th and 20th centuries. (Author's photograph)**

The role of the Church was vital to the administration and defence of many of these mercantile cities. Senior members of the German church hierarchy tended to come from the same aristocratic class as rulers, governors and military commanders – indeed, several senior churchmen proved to be effective military leaders, a characteristic of the German church that persisted well into the 15th century.

The Germans were not, of course, the only crusading and expansionist Christian people on the southern Baltic coast during this period. Denmark was carving out a Baltic empire that would

2 anon, tr. J.H. Robinson, 'War between Henry V and the City of Cologne, 1114; from The Greater Annals of Cologne', in *Readings in European History* (Boston, 1904)
3 Helmold, tr. F.J. Tschan, pp.231–2

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Carved pew-end dating from 1284, showing King Henry VII of Germany (r.1220–35). During his troubled reign many German mercantile cities strengthened their autonomy. (Niedersächsisches Landesmuseum, Hanover; author's photograph)

stretch from Holstein to Estonia, including part of what is now Sweden. Lübeck itself fell to the Danish king shortly after a Crusader fleet left its port in 1201. Seen from the Danish point of view, Lübeck was thereby eliminated as a military asset for its rival, the Count of Holstein; however, the move looked different to those who recognized Lübeck's importance in the Northern Crusade. Further Danish expansion followed, and, for supporting Frederick II as German Emperor against his rivals, Valdemar II of Denmark was rewarded by having his authority over Schleswig, Holstein, the Wendish lands and Pomerania recognized by the Emperor. Indeed, for a while it seemed as if the Baltic might become a Danish lake.

While 12th-century Lübeck flourished as the main point of departure for Baltic crusaders, its citizens tapped into other long-distance trading networks, some of which has existed for centuries. It has been suggested, for example, that ancient maritime trade between the Rhineland and England continued even after the fall of the Western Roman Empire, through the early medieval period. Merchants from Cologne certainly exported armour to London in the mid-12th century. Bremen similarly emerged as a major trading centre among the predecessors and members of the Hanseatic League. These early merchants travelled in groups, both by land and sea, because of the threat from robbers and pirates. Consequently, they were unusual in being permitted by Imperial Edict to carry weapons – a privilege normally reserved for the military aristocracy – and such bands of merchants were fully capable of defending themselves.

There has been a tendency to assume that the aristocratic culture of the medieval élite was admired by those lower down the social ladder, but by the first half of the 13th century other values were pushing to the fore in Germany. This is seen in the works of a poet known as Der Striker, 'The Knitter'; his clerical anti-hero, the trickster Pfaffe Amis, 'Priest Amis', highlights the cultural confusions of the age, pointedly condemning the lordly class and ridiculing the cult of Courtly Love. Another of his works, *The Sayings of Friedrich of Sunnenburg and the Marner*, attacks social and political evils in words that seem to reflect the attitudes of a new, urban, merchant élite.

CHRONOLOGY

1100–50	Second stage of German eastwards colonization
1143	Traditional date of foundation of Lübeck
1147	Wendish Crusade
***c.*1157–60**	Privileges granted to Cologne merchants in London. German merchants form co-operative in Gotland.
1167	Saxony subdues Mecklenburg
1168	Danes conquer Rügen

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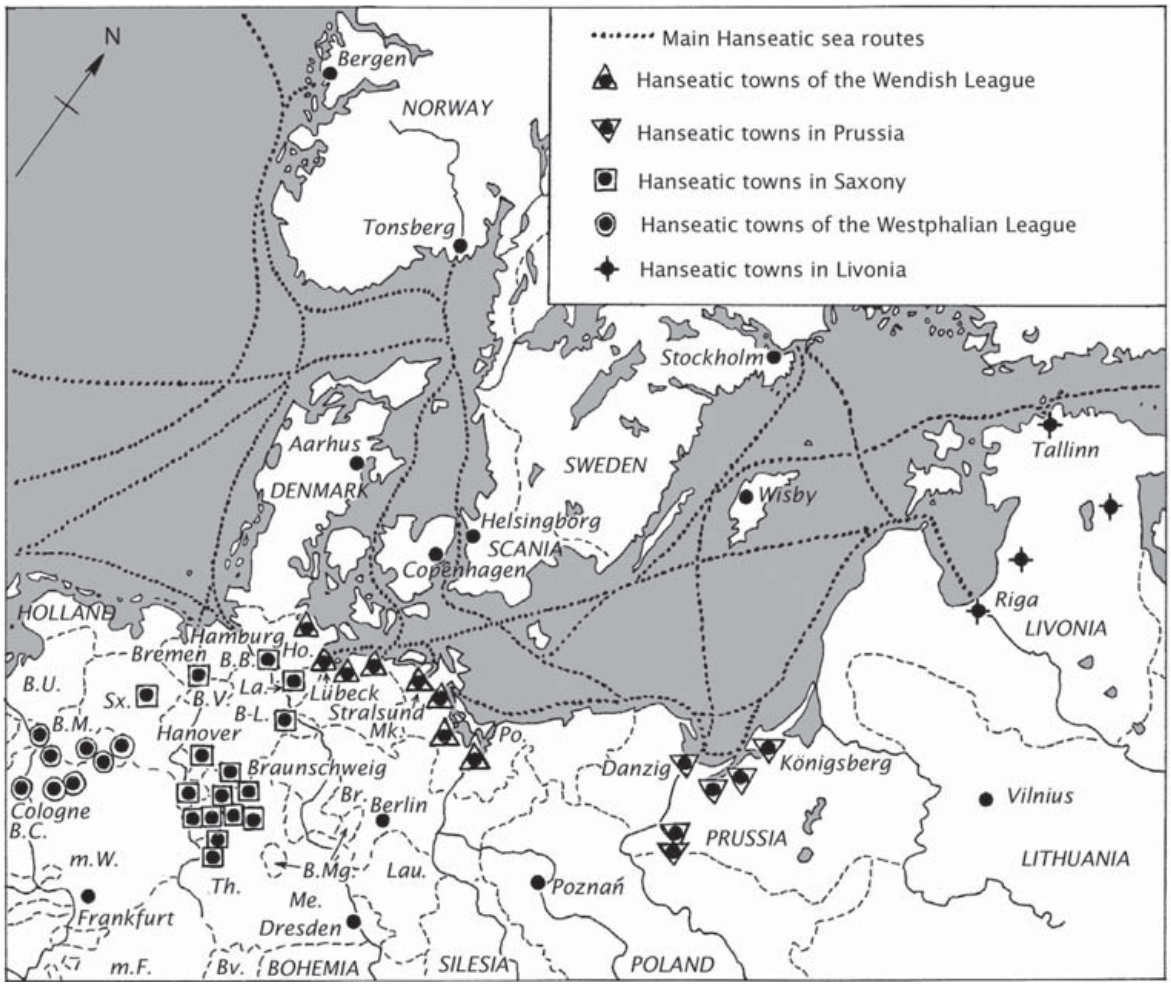

***c.*1184**	Foundation of autonomous German merchants' colony in Novgorod
1201	Holstein and Schwerin fall under Danish sovereignty
1218	Rostock becomes a city
1226	Lübeck becomes a free Imperial city
1227	Valdemar II of Denmark defeated at Bornhöved
1229	Wismar becomes a city
***c.*1230**	First agreement between Lübeck and Hamburg
1234	Stralsund becomes a city. Naval battle off Warnemünde between Lübeck and the Danes.
1249	Lübeck fleet lands outside Copenhagen; Lübeck raids Stralsund
1254–56	Formation of League of Rhineland Cities
1259	First agreement between Lübeck, Wismar and Rostock
1280–82	Trade embargo against Bruges; 1282, establishment of German Hanse (merchant association) in England
1284–85	War between Hanse and Norway
1293	Alliance between Lübeck, Wismar, Rostock, Stralsund and Greifswald
1304	Baltic coast of Holstein (except Lübeck) passes to Denmark

The Hanseatic League in the later 14th century. *Key:*
B.B. = Bishopric of Bremen
B.C. = Bishopric of Cologne
B.M. = Bishopric of Münster
B.Mg. = Bishopric of Magdeburg
B.U. = Bishopric of Utrecht
B.V. = Bishopric of Verden
B-L. = Braunschweig (Brunswick)-Lüneburg
Br. = Brandenburg
Bv. = Bavaria
Ho. = Holstein
La. = Lauenburg
Lau. = Lausitz
m.F. = minor states of Franconia
m.W. = minor states of Westphalia
Me. = Meissen
Mk. = Mecklenburg
Po. = Pomerania
Sx. = Saxony
Th. = Thuringia.
(Author's map)

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1307	Lübeck becomes a Danish protectorate
1309	Pomerelia (including Danzig/Gdansk) incorporated into Teutonic Knights' state
1311–17	War between coalition of Denmark and northern German princes against alliance of Wismar, Rostock, Stralsund and Greifswald
1312	Rostock falls to princes
1316	Coalition of princes defeated outside Stralsund
1319–40	Anarchy in Denmark
1341	Skåne ceded by Denmark to Sweden
1356	First *Hansetag* (council meeting of Hanseatic representatives)
1358–60	Hanseatic embargo against Flanders
1360	Skåne regained by Denmark
1361–62	War between Denmark and Hanseatic League; Danes attack Wisby
1362	Hanseatic fleet lands army outside Copenhagen and Helsingborg
1367	Formation of Confederation of Cologne, the mature Hanseatic League
1367–70	Second war between Hanseatic League and Denmark
1368	Hanseatic fleet lands army outside Copenhagen, Helsingborg, Langeland, Falster and Møn
1370	Peace of Stralsund ends League's war with Denmark
1375	Brunswick/Braunschweig excluded from Hanseatic League
1390–1401	*Vitalienbrüder* pirates ravage trade in Baltic and beyond **1397** Union of Kalmar between Denmark, Sweden and Norway
1408–16	Internal conflicts in Wendish Hanse towns
1410	Defeat of the Teutonic Knights by Poland and Lithuania at Tannenburg/Grünwald
1426–35	War between Hanseatic League and Denmark
1428	Hanseatic bombardment and attempted blockade of Copenhagen
1428–29	Hanseatic raids on Bergen
1429	Danes attack Stralsund
1438–41	Hanseatic-Dutch war
1451–57	Last Hanseatic embargo against Flanders
1466	Peace of Thorn/Toruń places Teutonic Knights' state and its Hanseatic cities under Polish sovereignty
1469–74	Hanseatic-English war
1494	Ivan III of Russia expels Hanseatic merchants from Novgorod, seriously weakening the League's resources

EVOLUTION OF THE HANSEATIC LEAGUE

The Northern Crusades and fear of Danish domination formed the background to the emergence of the Hanseatic League. The 13th century also saw Slav rulers whose territories had relatively recently converted to Christianity taking part in crusades. In 1217 the Slav but substantially

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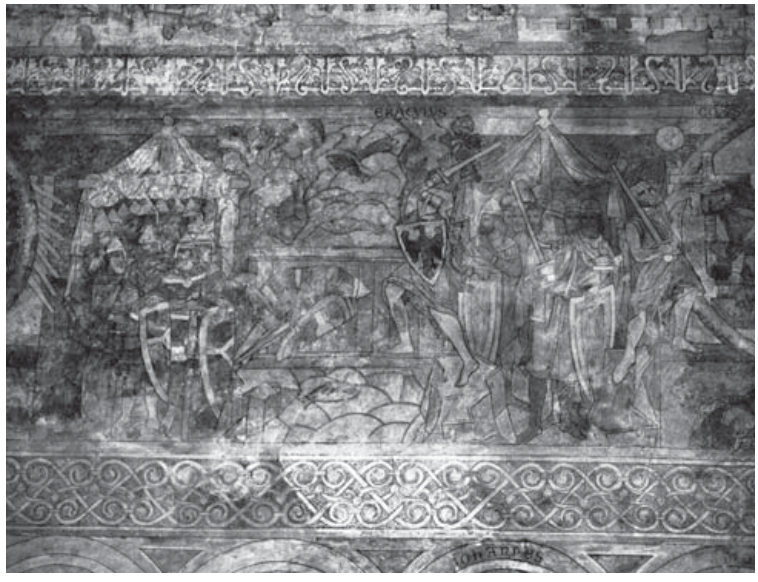
Germanized rulers of Mecklenburg did so, as did the Slav rulers of Rügen in 1219, and such participation confirmed their position within Christian Europe. The year 1219 also saw King Valdemar II of Denmark send a huge fleet to conquer pagan Estonia, but his success then increased friction between Danish and German churchmen over who would administer the new province of Estonia.



Detail from a sequence of wall-paintings illustrating the story of the Roman Emperor Heraclius, made in the late 12th or early 13th century. Though considerably restored in the 19th century, these paintings illustrate the contemporary military equipment and costume of Saxony. (*in situ* Cathedral of Brunswick/Braunschweig; author's photograph)

With conflict between crusading armies looming in the eastern Baltic, Valdemar decided to take drastic action: as nominal lord of Lübeck, he decided to blockade its harbour to stop German volunteers passing through to join crusader forces in Livonia. Many crusaders were appalled that a Christian king should obstruct crusader reinforcements. Lübeck may also have been under Papal protection as a vital embarkation point for crusaders; eventually Pope Honorius ordered Valdemar to reopen Lübeck harbour, but mistrust remained.

Meanwhile, declining Imperial authority within Germany enabled merchant cities, local aristocracy and churchmen to strengthen their autonomy and establish regional associations. Lübeck's first formal link was with Hamburg, both cities being wary of Danish empire-building. However, within a few years Danish power in the Baltic collapsed, and in 1223 Valdemar and his eldest son were captured by Count Henry of Schwerin. Henry demanded that Valdemar renounce his conquests in Holstein and become a vassal of the Empire, and as Valdemar lay in prison most German territories within the ephemeral Danish empire threw off their allegiance. Once released, Valdemar promptly assembled his forces to regain what he had lost. The ensuing struggle eventually ended with Danish defeat at Bornhöved in 1227, and the Danes only retained the island of Rügen from their southern Baltic conquests.

Meanwhile, the establishment of towns inhabited by German settlers continued hand-in-hand with a spread of German culture. Lübeck had been raised to the status of a city in 1226. To the east, originally Slavic Stralsund received trading privileges from the Prince of Rügen in 1234, and developed as a trading centre so rapidly that Lübeck tried to stifle this new rival. There was also a confrontation between Stralsund and its original sponsor, the Prince of Rügen. Unlike Lübeck, Stralsund was not strong enough to break away from its territorial lords, soon passing to the originally Slav but increasingly Germanized Principality of Pomerania. Another town that eventually joined the Hanseatic League was Toruń; established by the Teutonic Knights, it became the second most important Hanse town in Prussia during the 14th century. Danzig/Gdansk was already an important settlement in the late 10th century; briefly dominated by Danish princes in 1301, Danzig was seized by Brandenburg in 1308. After this the Teutonic Knights arrived, soon taking control and encouraging German settlement.

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Wall-painting of St George with the Virgin and Child, mid-14 century. (*in situ* Cathedral, Lübeck; author's photograph)

The formation of the 'proto-*Hanse*'

It was a fertile period for the emergence of urban leagues, and in 1241 the first formal alliance between Lübeck and Hamburg was strengthened when they agreed to jointly protect trade routes on sea and land, especially in the lawless territory between the Elbe and Trave rivers. Osnabrück joined them in 1246, winning greater autonomy from its ruling bishop. Goslar, the centre of copper-mining in the Harz Mountains, joined this proto-Hanse in 1267–68, but did not become an Imperial Free City until 1340. Lüneburg, at the centre of a huge salt-mining industry, also joined in 1360.

Though this proto-Hanse was not the only such German urban *bund* or association, it would be the most enduring. Shortly after 1281, three competing groups of German merchants in London unified into one 'German *Hanse*' in return for privileges, which included possession of a hall that ultimately became London's own famous Guidhall. In return the Germans paid 40 shillings a year, shared guard duties within the city, and maintained the fortified Bishopsgate. By contrast, fierce competition in Baltic trade made it more difficult for rival cities to reach agreement. There was conflict between Lübeck and Stralsund in 1249, and not until 1259 did Lübeck, Wismar and Rostock sign a Community Agreement to jointly protect their ships against pirates. This was strengthened in 1264, with greater commitment to joint action and an obligation to support each other in case of war with neighbouring princes. Over the following decades other Baltic cities joined them, until a Hanseatic League existed in all but name.

Clearly there was now a sense of fellow-feeling amongst the merchants of these Hanse cities, who in the 14th century often referred to themselves as 'the common merchants of the Roman Empire of Germany'. Less consciously, perhaps, most Hanse towns adopted a common heraldic identity if not a common flag, red and white becoming the colours of the coats-of-arms of virtually all Hanseatic maritime towns.

Stables and gate guards' accommodation next to the *Burgtor* of Lübeck, 15th century. (Author's photograph)

Early military cooperation

Almost inevitably, the members of this early Hanse found themselves involved in conflicts other than fighting brigands or pirates. Most clashes were fought to maintain existing commercial privileges, though in cases such as the confrontation with Bruges in 1282 defending these rights could involve trade embargoes rather than much fighting. Two years later the first real military campaign involving Hanse forces, to maintain trading privileges in Norway, was still primarily economic, though backed up by naval force.

The Danes' efforts to regain their position suffered another setback in 1316 when an alliance of Denmark and other princes was defeated by the Hanse outside Stralsund. Fourteen years later, Valdemar IV Atterdag ('New Dawn') came to the Danish throne and made another bid for Scandinavian domination. After some success against the Counts of Holstein, Valdemar IV seized control of the strategic island of Gotland

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in 1361, but this prompted an alliance between Sweden and the German Hanse, who were soon joined by Norway.

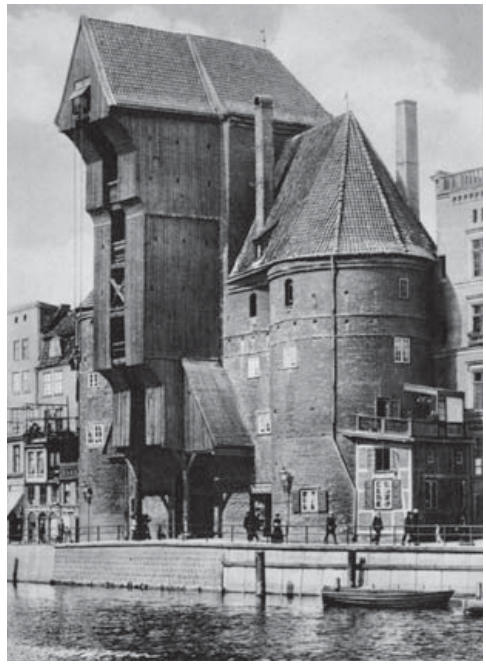
Forming an anti-Danish alliance was one thing – agreeing when war should start was another. While the Hanse's essentially naval preparations went smoothly, their Swedish and Norwegian allies were slow in gathering forces for a land campaign. Further disagreements meant that the initial objective of Copenhagen was replaced by the Danish-held fortress of Helsingborg in Skåne, in what is now Sweden. In the event the campaign was a fiasco; the Hanseatic fleet lost most of its ships, while King Valdemar IV Attertag emerged stronger than ever.

Clearly the Hanse had different priorities from its princely allies and neighbours. Although there were also divisions within the Hanse, the German merchant cities mainly feared a revived Danish empire, especially after Valdemar IV married his daughter to Haakon VI of Norway in 1363. Consequently, their representatives eventually agreed upon the establishment of the 'Confederation of Cologne'. On St Martin's Day 1367, representatives of trading cities from Holland to Finland proclaimed that 'because of the many wrongs and injuries that the kings of Denmark and Norway have done and are doing to the rank and file of merchants, we declare ourselves their enemies and bind ourselves to help one another'.[4] This was effectively the birth of the Hanseatic League proper.

Organization and infrastructure of the League

The cities of the Hanseatic League were in four zones: a western Baltic district headed by Lübeck, a Rhineland district headed by Cologne, a Saxon district headed by Brunswick, and an eastern Baltic district headed by Danzig/Gdansk. Meetings were held between representatives of the towns to discuss general policy and strategy. Known as *Hansetags*, these conferences usually took place in Lübeck which became, in effect, the 'capital' of the Hanseatic League. Lübeck was also by far the leading north German town in terms of trade, especially maritime trade. But although the influence of Lübeck was great, it did not rule or even dominate the League, which remained a free association of towns with their own, sometimes competing, commercial and political interests. In fact there was frequent disagreement, outright disobedience and considerable internal strife. Nevertheless, the constitution of the Hanseatic League remained effective during the late medieval centuries that were the organization's golden age.

Maritime concerns lay at the very heart of Hanseatic affairs, shipowners being amongst the League's most influential men. In fact ownership of ships tended to be shared (at least one vessel had no fewer than 64 part-owners). Such men were drawn from practically all classes, hence the whole population of a maritime city had a close interest in the maintenance of a substantial fleet. This meant that, for several centuries, the Hanseatic League supplied the fragmented German Empire with remarkably effective sea-power. During the Middle Ages a large trading fleet could easily be used for warlike purposes, but it required



The *Krantor* or Crane Gate (now called the *Brama Żuraw*) in Danzig/Gdansk. Originally constructed in the mid-14th century, this was rebuilt in 1442–44. Cranes for loading and unloading ships were powered by windlasses and treadmills. (German State Photographic Archive)

4 Bjork, D.K., 'The Peace of Stralsund, 1370', in *Speculum*, 8 (1932) p.453

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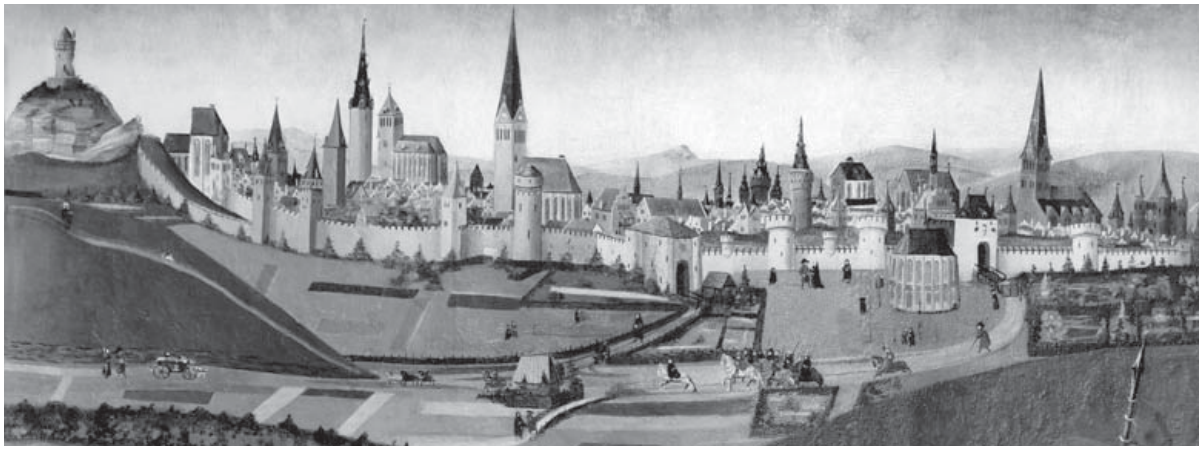

A view of Lüneburg on a painted panel showing Abraham and Melchisadek, *c.*1450. This Hanseatic town was a centre for the mining of salt, and its transportation prompted the building of the remarkable Stecknitz canal. Constructed between 1390 and 1397 to link the Elbe and Trave rivers, with 17 locks to get it over higher ground, this waterway thereby also linked the Baltic and North seas. (*in situ* St Nicolai Kirche, Lüneburg)

substantial numbers of sailors. Here northern Germany was fortunate in also possessing a huge fishing fleet, from whose crews such sailors could be recruited.

Theirs was a long-distance though still coastal fishing trade, which required vast quantities of salt for the preservation of the catch. The Hanseatic town of Lüneburg may have grown prosperous from mining rock salt, but even its extensive mines could not produce enough, requiring a massive importation of sea salt from the Biscay coast of south-western France to the north German ports.

Given such extensive and intensive maritime trade, it is hardly surprising that simple lighthouses were being constructed from at least the start of the 13th century. Channels between coasts and major harbours were similarly marked by buoys, while experienced maritime pilots offered their services to con ships through difficult waters. In 1447 the League made the use of accredited pilots compulsory; this was not just for the immediate safety of the vessels involved, but also ensured that vital channels were not blocked by wrecks. Comparable emphasis was placed on fortification, and in northern Germany this was usually of brick, being in the same tradition as the famous *Backsteingotik* brick-built cathedrals and civic buildings of the southern Baltic.

However, despite considerable effort and expenditure on defence, the Hanseatic League never had its own standing army or navy, military forces remaining the responsibility of individual cities. In fact the League always preferred to use diplomacy, alliances and economic pressure against rivals. This deeply held Hanseatic belief would be summed up by Hinrich Castorp, a mayor of Lübeck, who said in 1447: 'Let us negotiate! For it is easy to tie the pennant to the pole [i.e. raise the banner of war], but hard to take it down again with honour'.[5]

LAND WARFARE *c.*1250–*c.*1425

By the 13th century a feudal military structure was in place along the eastern marches of the German Empire, but its bonds were looser than elsewhere in Germany. Consequently, feudal musters were already being

5 Rörig, F., *The Medieval Town* (London, 1967) p.165

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supplemented with mercenaries. Another feature of medieval German warfare was that many of the written accounts were the work of townsmen, who tended to be more sympathetic to troops of non-noble status than were the chroniclers of France or England. Furthermore, significant military and naval contingents came from towns, notably during the north German struggles against Denmark, for which cities that became members of the Hanseatic League provided large numbers of troops.

Fragment of a wall-hanging from Lower Saxony, perhaps made in Halberstadt *c.*1160–70. It depicts the soldiers sleeping outside Christ's sepulchre, wearing late 12th-century mail armour. (Bode Museum, Berlin, inv. nr 1888,470; author's photograph)

In northern Germany, as elsewhere in Europe, urban fighting forces were often based upon urban quarters and guild structures. The latter ranged from the wealthy guilds of politically powerful merchants to those of quite humble craftsmen. Within the Hanseatic cities successful merchants were only really distinguished from the ruling élite or patriciate by their relatively lesser wealth, and it was from these merchants that the patriciate drew new members. Meanwhile, by the late 14th century craftsmen might form over half the male inhabitants of a trading city; for instance, in Lübeck they were 43 per cent of the male population. Beneath them were those who lacked a 'craft skill', owned no property, or were aged, sick, or orphans. The cities themselves were governed by councils whose members were largely drawn from the urban patriciate, which took over the duties previously undertaken by feudal lords, such as defending the city against neighbouring principalities which often still claimed lordship. Resulting clashes were frequent and sometimes bloody, but ultimately resulted in many cities extending their own authority over the surrounding countryside.

In the early days German forces had been subject to a *waffenrecht* or law which banned peasants from using lance, sword, armour or warhorse, leaving them with only bows and knives. This was intended to preserve the military dominance of the knightly élite, but it failed when mercenaries and territorial levies adopted crossbows. Restrictions on the bearing of arms remained, though it was also accepted that merchants needed to do so when travelling. A clause in the Peace of Stralsund of 1370 illustrated such a compromise, declaring that only while passing between his ship and his lodgings was a merchant allowed to carry weapons; if otherwise found armed on land he would have to pay a fine, though he could be fully armed when at sea.

Another depiction of sleeping guards at the Holy Sepulchre, this one on a bronze font made around 1335. (From the destroyed St Mary's Church, now in the Church of St Nikolai, Wismar; author's photograph)

In the early days, German urban militias were led into battle by the towns' mayors. During the 13th-century Baltic Crusades, however, large numbers of the same men went on campaign. In 1246 some who fought alongside the Teutonic Knights in Prussia were called *juvenes Lubicenses*, 'young men of Lübeck'. In fact, Lübeck played such a leading role that Popes offered indulgences to those who simply supported the crusade rather than necessarily taking part themselves. Many also grew rich in the process.

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Panel from an altarpiece from the church of St Maria zur Wiese in Soest, Westphalia, *c.*1340–50. Note the rivet-heads on the body armour, suggesting a long coat-of-plates, and the ermine-lined cloak; compare with Plate C2. (Bode Museum, Berlin; author's photograph).

Militia organization

Lübeck was not alone in having an effective military administration. Such cities were divided into quarters, each usually having a gate through the outer wall. Each parish within the fortifications raised a militia unit of local citizens, under a *viertelmeister* or 'quarter-master' appointed by the city council. He was normally assisted by other officers, plus a trumpeter and guard to man the quarter's watchtower. Fortifications were maintained through local taxes, as were drill squares and shooting ranges where militiamen could practise their skills.

From the 13th century the main elements within German urban militias were armoured men equipped and trained for close combat, both cavalry and infantry, and crossbowmen who formed a separate force – in fact, crossbows became characteristic of Hanseatic armies. Citizens kept their military equipment at home, ready to obey a summons promptly. Those wealthy enough to serve as cavalry were organized according to the same *gleven* or 'lance' system as seen in medieval German feudal and mercenary armies. Furthermore, better-armed burghers were still fighting as active soldiers in the late 14th century, by which time many towns also employed a *büchsenmeister* master-gunner. Urban militia contingents supposedly dressed in their city's colours and marched behind their own banners. Many German cities had a banner-wagon comparable to the Italian *carroccio*, and such urban armies clearly had effective logistical support.

This remarkable system did not, of course, always work perfectly. Political tensions persisted, and a choice sometimes had to be made between external security and internal stability. If dissident groups within a city were disarmed the city would lose vital troops, but if they remained under arms they might pose a security risk. So some Hanseatic cities, like 14th-century Cologne, took drastic action by stripping their militias of useful fighting men.

The armies of territorial princes

Amongst neighbouring territorial princes, the Count of Holstein was supported by a marshal and a constable, while urban burghers (including those of some Hanse towns) and rural militiamen formed the majority of Holstein's 13th–14th century territorial levies. The organization of Holstein armies was the same as that seen elsewhere, with *banieren* or *conroten* of around 20 cavalrymen; the Latin term *turma* probably meant the same for cavalry, and was also used for infantry units. The numbers of knights were only in the hundreds, with the figure of 400 commonly being mentioned. However, these were supported by squires and servants such as 'shield boys', who did not normally fight but looked after the horses.

14th-century knight pursuing the Green Man (Wild Man) who has seized a child; image on an effigial brass of Gottfried and Friedrich von Bülow. Note the bascinet, the asymmetrical shield, and the 'wrap-around' cantle of the saddle. (*in situ* Cathedral, Schwerin)

The militias were more numerous. When levies were

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summoned from farming communities they assembled at their local parish churches. Then, after spiritual encouragement from the parish priest, these rural militiamen went off to the Count's designated muster area. In many parts of early 15th-century Germany such levies were summoned on the basis of households; e.g., in 1421 one man was demanded from every ten households. However, the effectiveness of rural militias varied. The coastal Frisians, for example, had a high fighting and naval reputation, and their somewhat isolated homeland was never fully feudalized. Regarded by outsiders as an almost free people, the Frisians' immediate loyalty was to their church leaders, and these men were certainly welcome on Crusade, especially during the first half of the 13th century. Nevertheless, few Frisians were mounted, and their traditional weapon of a short spear or javelin seemed rather archaic. Reliance upon infantry was also a feature of Dithmarschen rural levies, though their traditional or preferred weapon was a long-hafted axe.

Soldiers from 'The Passion', a triptych in the *Kanonischen Tageszeiten*; first half of the 15th century. (*in situ* Cathedral, Lübeck; author's photograph)

Legally unfree but nevertheless militarily élite, *ministeriales* ('knights' originally having the anachronistic legal status of serfs) were found in some other parts of Europe but were particularly characteristic of medieval Germany. The majority inhabited rural castles but some lived in towns, having been installed there by feudal lords to supervise potentially troublesome urban populations. Urban *ministeriales* were particularly important in the forces of 13th-century Cologne, but much less is known of their role in northern German towns along the Baltic coast.

St Maurice on a carved and painted wooden altar, *c.*1430. Note the characteristic German horizontal 'keel' of the breastplate, and the large circular central plate on the low-slung belt. (*in situ* Church of St Nikolai, Wismar; author's photograph)

Mercenaries

Militarily more important for the emerging Hanseatic cities were mercenaries. Some soon hired *aüssoldner* 'pensioners' to offset the power of local aristocracies. These troops, including cavalry, were paid half wages in peacetime. Generally speaking the autonomous princes of northern Germany relied less upon mercenaries, with the notable exception of the Teutonic Knights, though paid troops would play a significant role in Holstein during the 14th century. Towards the end of the 13th century it became customary for Holsteiner knights to serve Lübeck, but they earned a reputation for disturbing the peace, and had to be removed from the lists of permanently employed troops. Instead, from the mid-14th century onwards, Holstein knights were employed by Lübeck and other towns as mercenaries within *gleven* units of from four to ten men, including crossbowmen. Documentary evidence suggests that members of the same family commonly served together, which could result in knightly families suffering greatly after a bloody defeat. During the mid-14th century Lübeck mercenary knights tended to enlist in small groups and were paid through their leader, though contracts between

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Wall-painting of a huntsman with a crossbow, late 15th century. (*in situ* Cathedral, Lübeck; author's photograph)

cities like Lübeck and knightly mercenaries usually agreed that they would not be expected to fight against their own feudal lords.

Less is known about lower-status mercenaries, and although such men could earn considerable wealth they were rarely promoted into the aristocracy. For the Hanse towns most mercenary infantry were recruited from Hanover, Westphalia, Thuringia and Saxony. Mercenary crossbowmen would replace local militia crossbowmen by the end of the 14th century, and by the end of the medieval period Hanseatic towns were enlisting mercenaries for garrison duty even in times of peace. A city council would give a mercenary leader a letter of authority to enlist recruits, along with a date and place of muster, usually at a port. Recruits were given travel expenses to this muster point in advance, and would similarly be provided for their travel home when paid off.

The regularly paid 'city servants' of Hanseatic cities maintained law and order rather than serving as an army. Their pay varied, but in Stralsund in 1360 a mounted 'city servant' received 15 *marks* annually. Even in peacetime, military expenditure accounted for over 80 per cent of Cologne's civic spending in 1379; in 1437 in Rostock it stood between 76 per cent and 80 per cent. Full-scale naval or land campaigns were even more costly, Hanseatic expeditions being financed by taxes levied in the cities and by tariffs imposed on trade.

Crossbows

Military equipment was, of course, a major expenditure, and armour became more expensive as it grew more sophisticated. The coat-of-plates, for example, had probably first been seen in Germany in the mid-13th century, and proved notably effective against archery. The standard of equipment expected of militiamen varied between cities, but as expectations increased, so did cost.

The major role of crossbows in Baltic warfare had given a significant advantage to Germans and Scandinavians over the pagan peoples of the southern and eastern Baltic from the later 12th century onwards. By that time most north German crossbows had bowstaves of composite construction, made in essentially the same manner as Middle Eastern Islamic crossbows, though being very different from the composite construction of hand-held bows, and the incorporation of whalebone in composite crossbow staves would be a distinctly northern concept. Fragments and virtually complete crossbows dating from the first half of the 14th century have been found in several parts of northern Europe and Scandinavia. One example from Lübeck incorporates a reinforced groove for the bolt or arrow made of antler horn. A similar crossbow from Hanseatic Cologne dates from around 1400, and both have composite staves.

Large, non-portable 'wall crossbows' could equally be mounted on a frame or cart for open-field warfare. The variety of crossbows used in 14th-century Germany is highlighted by their terminology and the differing methods used to span or draw back their powerful bows. For example,

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in 1307 and 1308 Hamburg bought ten *balistas stegerepas* (normal stirrup crossbows) and ten *balistas dorsales* ('back crossbows'). The latter may have been spanned with a *croc* or hook which, in German, was often corrupted to *rück*, meaning the back. Alternatively, they may have been spanned by an early form of the so-called 'goat's-foot' spanning lever that came into use during the 14th century.

Crossbow bolts included those with tanged or with socketed heads, and were primarily designed to penetrate armour. There were also significant developments during the 14th century, as when Frankfurt-am-Main ordered that many crossbows be modernized and their bolts or arrows shortened. The resulting short bolt with its steel head could penetrate virtually any armour at close range. Furthermore, finds from a wrecked *kogge* at Kalmar include crossbow bolts with spiral fletching, which made them revolve in flight to achieve a degree of accuracy not reached by guns until the introduction of rifling. Unlike his traditional rival, the so-called longbowman, a trained crossbowman relied upon the power and accuracy of his shot rather than the speed of his shooting and the weight of his arrow.

German crossbow with a composite stave, late 15th century. (Deutsches Historisches Museum, Berlin; author's photograph)

It is also worth noting that the supposedly poor rate of shooting of crossbows, almost universally accepted by military historians, may be exaggerated. Unlike an ordinary archer, a crossbowman normally worked with a second man who spanned and perhaps also loaded his weapon. As a team they could achieve a much faster 'rate of fire' than if the crossbowman operated alone; furthermore, the shooter avoided tiring his arms by spanning and respanning his weapon, instead concentrating on the accuracy which was always the crossbow's great advantage.

In medieval northern and western Germany, including virtually all members of the Hanseatic League, the process of attaching bolt-heads to bolt shafts was called *sticken*, the craftsman himself being known as a *pilsticker*. He also manufactured the flighted shafts. On campaign enormous quantities of such bolts were carried in casks, an army's or fleet's munitions being assessed in terms of casks rather than the missiles themselves, and in northern Germany and Denmark it was reckoned that a cask or keg contained 800 bolts.

The resale of captured military equipment or that retrieved from a battlefield was probably as common in northern Europe as in the south. In times of crisis travelling merchants are likely to have done a brisk trade in such items at fairs. However, the wealthy cities of the Hanseatic League and in other parts of Germany also encouraged weaponsmiths to settle within their walls, especially those making or repairing crossbows. For example, guilds of crossbow-makers existed in 14th and 15th century Lübeck, as elsewhere, including a hierarchy of masters, journeymen and apprentices. Such guilds had strict rules governing the quality of raw materials, a requirement for completed crossbows to be marked so their maker could be identified, and official permission for craftsmen to work on religious holidays because their production was so important.

Master craftsmen were prohibited from enticing workers away from other masters, and discipline within the guild was ensured by punishments

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including fines payable to the guild or the city. An alternative sanction was to insist that an offender supply wax for candles in churches, which highlighted the important religious underpinning of these craft guilds. German cities also had their own official, full-time crossbow-maker whose job was to produce a certain number of weapons each year. Conditions of employment varied, but the Hanseatic city of Hamburg can be taken as an example. There, from the start of the 14th century, the city's own *balistarius*, *balistifex*, or *armborstmakere* had to produce four weapons a year, being paid extra for any additional bows he could make.

Other weapons

Crossbowmen were not, of course, the only foot soldiers – either militiamen or mercenaries – raised by members of the Hanseatic League. In fact, it has been suggested that Hanseatic cities played a leading role in the rise and development of well-trained, cohesive infantry formations in north Germany. As was also seen in the highly urbanized Rhineland, the period from the mid-14th through the 15th century became what is called the *volkssöldnertum*, during which the dominance of the knight was reduced by the increasing effectiveness of commoners fighting on foot.

There is not the same amount of contemporary written information about the use of infantry weapons as there is for cavalry. Nevertheless, surviving weapons and armour as well as the evidence of pictorial sources make it clear that protection for the hands and head was a primary concern. Some pole-arms or staff weapons demanded great skill from the individual foot soldier, and considerable disciplined cohesion within infantry formations. A primary function of such long-hafted weapons was to reach a man on horseback and to break or penetrate his armour, while shorter pole-arms were of more use against an opponent on foot. Experimental archaeologists claim to have identified different combat actions for use when advancing or when in a static defensive posture, or when fighting behind field fortifications. Several of these actions would also have been useful in naval warfare, where boarding remained the primary tactic.

Another set of infantry skills concerned short swords, axes and short spears, which were still used with shields or small bucklers in much of the German Empire. These were primarily for closer and more mobile combat, again probably also including naval engagements.

'Ships in a storm', in the *Sächsische Weltchronik* produced in Saxony between 1275 and 1300. (Staats- und Universitätsbibliothek, Bremen, Ms. a 0033 f.57r)

MARITIME WARFARE

While the Hanseatic League could call upon large numbers of mariners to man its fleet, especially from the fishing communities, it also recruited naval mercenaries who might better be described as buccaneers or even pirates. Over the years, Hanseatic shipping operated within an increasingly disciplined and structured framework of rules supervised by the *Schiffsrat*, a governing body for mariners and shipowners. For example, Hanseatic maritime law would ban sailing in winter between 11 November and 2 February, a

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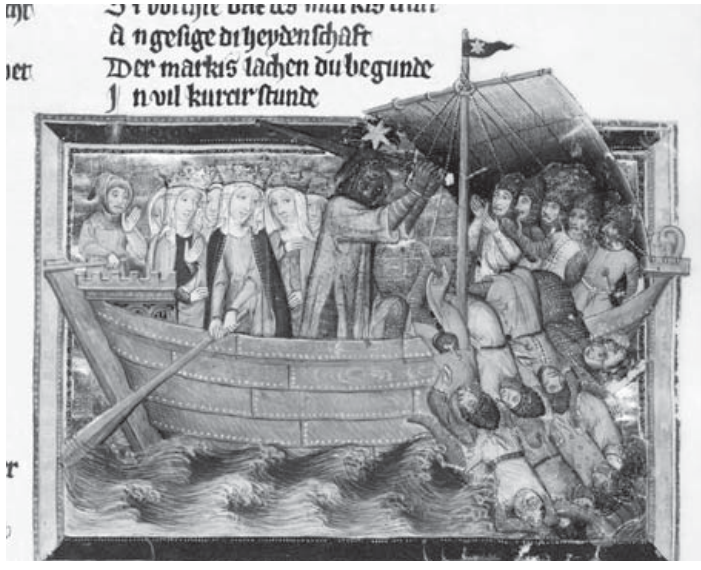
regulation based on the earlier rules of the main Hanseatic towns.

Because Baltic harbours tended to be shallow and often silted up, other regulations governed the maximum size of ships using each; Hanseatic maritime law was very specific where shipbuilding was concerned. There were also strict rules concerning *strandrecht* or salvage, the ownership of wrecked ships and cargoes; overloading; the jettisoning of cargo; and how to deal with piracy. Other regulations were issued by the individual cities, as in 1440, when Hamburg specified the military equipment on board its ships. Discipline on board was similarly regulated by officials from Hamburg's 'Admiralty', and other Hanseatic cities had their own rules. The fact that all but the smallest vessels were expected to be able to defend themselves against pirates meant that their modification for war service would seem to have been straightforward, while a disciplined acceptance of such regulations proved useful during Hanseatic naval campaigns.



'Willehalm taking control of ship', in the epic poem *Willehalm* by Wolfram von Eschenbach; manuscript dating from 1334. (Willehalm 2° Ms. poet et roman 1, f.32r, Landesbibliothek und Murhardsche Bibliothek der Stadt Kassel, Kassel)

Considerable effort was put into increasing the numbers of ships and the quality of their construction. All Hanse towns that claimed to be seaports probably had local shipbuilding industries from an early date, along with associated trades. These are reflected in the street names in many ex-Hanse towns: *Ankerschmiedegasse* where anchors were made, *Reepschlägerstrasse* and *Reeperbahn* where ropes were made, *Lastadie* or wharfs, *Brakbank* where ships were hauled up for repair. What is less clear is how long such ships lasted, which was probably not many years. Records from Lübeck show that the barge *Gabriel* was completed in 1471 and decommissioned in 1482, while the ballinger *Katrina* had to be replaced after eight years of service.

The miraculous saving of a child, on the effigial brass of the Bishop of Serkem and Mul, c.1350. (*in situ* Cathedral, Lübeck; author's photograph)

Although the Hanseatic League was a dominant player in maritime affairs it also tended to be conservative, only adopting new ideas and technologies after they had proved themselves elsewhere. Although charts were not known in northern Europe until the end of the Middle Ages, Hanseatic mariners used a *Seebuch* from the 14th century onwards; this provided information on tides, channels, harbours, the location of lighthouses and other significant coastal landmarks, from Russia all the way to Spain.

Ship types

The average sailing speeds of Hanseatic ships have been estimated at from 4.5 to 6.3 knots in a good wind. Nevertheless, in practice journey times tended to be slow; for instance, in moderate sea conditions it normally took six days to sail from Tallinn in Estonia

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Remains of a *kogge-type* vessel excavated from the mud of the River Weser, dating from c.1380. (Deutsches Schiffahrtsmuseum, Bremerhaven; author's photograph)

to Lübeck. Safety, reliability and cargo capacity were rated more highly than speed. This seems to have been the reason why the Viking tradition of ship design declined from the 12th century onwards.

The *kogge*, and later the *holk* (see Glossary, page 2), became the most important Hanseatic ships. By the end of the medieval period these were broad, heavy vessels with up to three masts, and castle-like structures at stern and prow. It has been suggested that the *kogge* had continental Celtic origins in pre-Roman or early medieval times. Constructed of relatively few large planks, and intended to carry heavy cargoes across open sea, they were not suitable for early medieval naval warfare, which relied upon rapid raiding, yet these sturdy vessels may have survived from early times along the Atlantic coast of France.

Some *kogges* had stern rudders early in the 13th century – a feature essential for the development of larger vessels with high sides. Furthermore, the *kogge* probably required less timber than a comparable Viking ship, while being easier and faster to build. The basic design lent itself to increasing size and capacity, which became major factors in medieval naval warfare. Though not as manoeuvrable as a Viking vessel, the *kogge*'s size and strength meant that it could defend itself effectively and absorb more damage.

In the early days the crew of a *kogge* might have been as few as 18 to 25 men, with from 5 to 20 passengers, but as dangers from piracy and warfare increased so these numbers increased: a later medieval *holk* might have as many as 100 crewmen. Senior crew and passengers lived in the stern, ordinary sailors and ship's boys either on the roof of the stern-castle or ahead of the mast. Even a simple fighting platform offered some protection from rain for those below, but the fighting castles on later 13th-century Hanseatic *kogges* did not retain their open structure for long.

An enclosed platform first appeared on a Stralsund seal of 1329. Half a century later a narrow but enclosed cabin was incorporated into both the port and starboard sides of the after-castle of the *kogge* found in the River Weser near Bremen. There was even a toilet on the starboard side of the stern, its seat set high enough for the user to put his head through the after-castle deck (perhaps the captain wanted to keep command of his ship even while answering nature's call).

The efficient cargo-handling capabilities of the fully developed *kogge*, with its substantial onboard windlass, were valuable when transporting armies and their equipment, especially heavy gear such as siege weaponry. Having a complete deck also meant that cargoes, be they mercantile or military, remained dry.

The *holk* remains something of a mystery but may have had similar origins to the *kogge*, first emerging as a specific type of ship in the narrow seas between France and England. No identifiable *holk* has been found, but pictorial evidence suggests a number of features. It may have had a

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'reversed clinker' hull, meaning that the planks overlapped upwards rather than downwards as in other forms of medieval northern shipping.[6] Once again, the Hanse was cautious, and it was only around 1400 that some Baltic merchants abandoned their *kogges* in favour of the *holks* that had long been used elsewhere. The type seemed capable of considerable further development and, because of its greater size, also lent itself to military purposes. Yet hardly had the *holk* started to take over from the *kogge* before a more radical technological advance ousted the *holk*.

This was the *carvel* system, originating in the Mediterranean, which produced flush planking and a smooth hull, like that of a three-masted French ship called the *Peter of La Rochelle*. Abandoned by its captain at Danzig in 1462 and taken over by Hanseatic owners, it became known as the *Peter von Danzig* or simply *Das Grosse Kraweel*, 'The Great Caravel', and was fitted out for a war against England in 1470. Thereafter this *kraweel* design was adopted enthusiastically.

Replica of the *kogge* now in the Deutsches Schiffahrtsmuseum, moored in the old harbour of Bremerhaven. (Author's photograph)

Assembly and command

The organization and discipline that smoothed Hanseatic trade also underpinned Hanseatic naval power. As a result, the League could assemble substantial naval squadrons at agreed times and places, gaining a strategic advantage and winning resulting naval clashes. Nevertheless, there were severe limitations to the Hanse's naval capabilities, and it really only succeeded when facing foes that lacked the League's sizeable fleet and organizational structure. Even piracy could not be entirely overcome, remaining the main problem for north German maritime cities, especially during the 14th century.

The command structure of Hanseatic ships was quite simple. The captain in command was usually the owner or part-owner of the ship; in 14th-century armed ships he was normally called a *schiffer* or *schipper* (skipper). Such men could command a squadron, and as a class they gained significant social status within mercantile cities. Some sought their fortune overseas; one such was Henry Bailly, who was born in Pomerania but lived in the English port of Hull for many years. Another maritime rank was the *setzschiffer* or *schiffsführer* (ship-master), who took over when the *schipper* was not on duty, but he remained a paid hand and rarely had a share in the ownership of the vessel.

Command of a fleet was a temporary appointment that required considerable experience. During this period, Hanseatic naval operations witnessed the development of a genuine maritime art of war with associated tactics and strategy, so those capable of command were eagerly sought by Hanseatic cities. Convoy commanders were usually appointed by the city councillors, as were war captains, while these councilmen also decided upon the hire of ships and the manning and formation of fleets. At sea an admiral had absolute authority over seamen, soldiers, mercenaries and civilians, as well as over the actions of the fleet.

Planks from a 15th-century medieval boat whose timber has been proved to have been imported from the Baltic. It was later reused in the wharf in Chapel Lane, Hull. (Hull & East Riding Museum, Hull; author's photograph)

6 Greenhill, B., 'The Mysterious Hulc', in *Mariner's Mirror*, 36 (2000) pp.3–18

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Many of these senior men were merchants in peacetime, yet the successes they achieved were considerable. For example, Bruno von Warendorp from Lübeck, who defeated the Danes on both land and sea in 1368, was also mayor of his home town. Simon von Utrecht was an even more famous Hanseatic naval commander. Probably born in Flanders, he moved to Hamburg, where he became a citizen in 1400. The following year Simon achieved fame by capturing Klaus Störtebeker, the most famous leader of the *Vitalienbrüder* pirates. Voted onto Hamburg's city council, Simon von Utrecht continued to take part in naval operations, notably against Denmark in 1428, and in 1432–33 he commanded the Hanseatic fleet fighting Frisian freebooters, destroying the Frisian pirate base at Sebaldusburg and seizing their capital of Emden.

From the later 14th century onwards the ranking structure aboard those Hanseatic ships commandeered and modified for military service became more formalized. This also applied to a marine or military formation known as a *fähnlein* that sailed aboard a fleet. The captain of such a *fähnlein* was normally on the flagship and had almost the same status as the fleet commander, but being in charge of military rather than naval personnel. The fleet's deputy commander normally sailed aboard a different ship, while the *profoss* (provost) in charge of mercenaries and the *feldweibel* responsible for the units of the *fähnlein* would be on the third most important vessel. Troops aboard each ship consisted of one or more *rotten* of around ten men, led by *rotten weibeln* or corporals. Another important officer was the *fourier*, who might be regarded as a divisional leader.

Naval officers aboard a flagship normally consisted of the captain and his deputy, the lieutenant, assisted by *spielleute* – drummers and pipers, who were essential for communication. It may, however, be assumed that when city officials chartered ships for military purposes they often hired their crews as well. Although the Hanse never demanded that Hanseatic ships be manned only by citizens of the League, the employment of foreign mariners was rare. Meanwhile the Hanse took particular care to regulate relations between captains and crews, with detailed rules concerning the duties and rights of both.

Seamen and soldiers

Sailors were mostly drawn from fishermen, day-labourers and rural peasantry. Their well-being and lives might be in the hands of merchants and the city authorities, but their wages were predictable, and they were also allowed to take part in trading, which, with luck, could raise families to some level of prosperity. Wages were graduated according to skills and duties aboard ship; for example, a ship's carpenter was highly paid, as were gunners, and senior crewmen with authority over others. Yet even ordinary sailors enjoyed respect, since they were recognized as vital for the prosperity and security of Hanseatic towns.

Marine troops who defended ships and convoys were recruited from the towns involved, usually from the urban militia. All able-bodied citizens could theoretically be called upon to defend a city's ships as well as its walls. In the 13th and 14th centuries Hamburg, Rostock and others had to employ naval mercenaries, and the League became renowned for providing its own vessels with marine infantry consisting of free *knechte* or mercenary soldiers. Some were probably drawn from the agreed contingents maintained by all Hanseatic member cities, and were paid from funds provided by the League.

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Sea battles

In many respects this military system sounds remarkably modern, yet medieval naval warfare tended to be exceptionally ruthless and brutal. Defeat in combat with pirates almost always meant death, as captives were rarely taken. Everyone on board therefore fought to defend a ship, including passengers and merchants, as an effective show of determination might make the pirates draw off. On the other side, pirates themselves could expect no mercy.

Every Hanseatic ship was supposedly provided with sufficient munitions to defend itself against the persistent threat from piracy. Even greater care was taken in time of war, when rules about the carrying of weapons by those who were not members of the traditional military élite were relaxed. For example, during the final phase of the Hanse-Danish war from July 1368, German maritime towns carried on trading as normal but ordered their citizens to travel fully armed. Before the introduction of guns the weaponry aboard these ships was essentially the same as that used on land. Crossbows were paramount; they were already common in the Baltic area in 1217, when a German priest from Latvia was reported as using one during a naval battle near the Swedish island of Öland.

Panel-painting celebrating a miraculous escape by a *Bergenfahrer*, a Hanseatic merchant specializing in the Bergen trade; German, 1489. Note the long line of guns shown in ports along the upper deck level, below the raised forecastle and stern superstructure. (*in situ* Marienkirche, Lübeck)

The *kogge* also gave crossbowmen a significant advantage, enabling them to shoot downwards from the ship's tall castles onto the lower weather deck of an opponent. The considerable range of crossbows similarly meant that men could start shooting while ships were some distance apart. Masthead positions also enabled crossbowmen to shoot downwards or to drop stones large enough to cause damage, while fighting castles at stern and prow made boarding easier. There are similarly records of larger crossbows being mounted or rested upon parts of a ship's superstructure. Heavy bolts from such weapons were supposedly able to punch right through an enemy vessel's hull and sink it, though in such cases the enemy vessels must have been small, flimsy boats. Throwing-axes are said to have been used in the early days, though this seems more likely to have been a misunderstanding of some other missile weapon such as a javelin.

Kogges may have been effective under such circumstances, especially in defensive terms, but they really came into their own as offensive warships only once they had been given sufficient guns. There is no clear evidence of fire-ships being used in northern Europe, though the Flemings tried this tactic unsuccessfully against the French in 1304. The occasional mentions of stone-throwing siege machines aboard northern ships all seem to refer to weapons that were being transported by sea, not used at sea.

When it came to handling substantial fleets the Hanseatic cities were remarkably effective, and surpassed their rivals even in the 13th century. When the ships had been mustered their capabilities and manoeuvrability were assessed before a fleet set out. Those of Lübeck, for example, were

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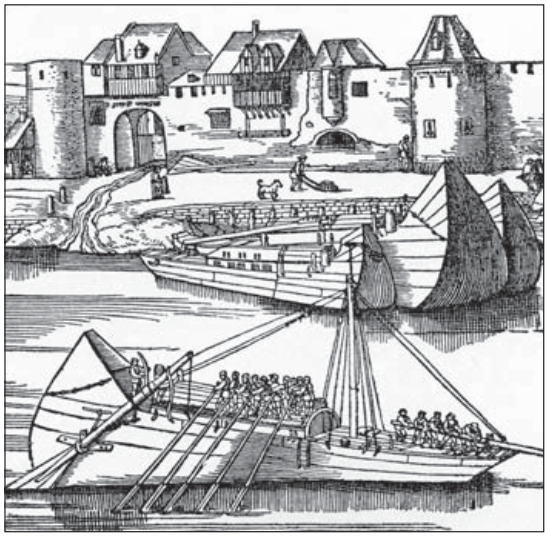
sometimes tested at Travemünde in the estuary where the Trave enters the Baltic Sea. Their roles and position within the fleet were then decided. Fleet actions are not generally thought to have been possible in the medieval northern seas, and northern ships primarily served as close-combat fighting platforms until the widespread adoption of firearms during the 15th century.

Even so, there were clear limitations to fleet manoeuvrability because of inadequate communications between ships. Consequently 'fleet' actions were usually limited to small squadrons, and even here attempts to exercise overall control did not necessarily succeed. During the early 16th century the only ships which had proper flags were those of admirals and their deputies, and this is also likely to have been the case in previous decades. Though flags and lights were used to transmit instructions, their main purpose was as a means of identification. Indeed, a Hanseatic regulation of 1428 specified that 'Every city should paint their boats and let the sides of the upper deck and the castles have their coat of arms, and also a big, light blue cross to be sewn on both sides of the sails'. It should be understood that this was only for one campaign or operation; otherwise ships relied upon flags with the emblem or mark of their own city.

Lacking dedicated or specially built warships, the cities of the League would 'arrest' or commandeer suitable vessels which might then be modified for the task in hand. Thus, in the 1280s Hanseatic *kogges* used for a blockade of Norway had tower-shaped and crenellated wooden platforms added fore and aft, a device that had been used by the English and French for some time. The earliest basket-like masthead crow's-nests were gradually replaced by more substantial structures for archers and crossbowmen. Initially temporary, these became a permanent feature from the 14th century onwards, and in troubled times the decks might similarly be given additional breastworks.

Nevertheless, during the 15th century Hanseatic merchants felt that some of their ships were too valuable to risk in warfare, and this clearly applied to certain large *holks*. Of course, *holks* could not always avoid getting caught up in conflict; indeed, they were often targeted, as happened in 1413 when eight English ships under John Colvyle found two Hanseatic *holks* off La Belle Isle. Though there was currently a truce in the Hundred Years' War these *holks* were sailing from the French port of La Rochelle, so the English sent a boat across to ask what cargo they carried – if it was French, they would have to hand it over. However, the Hanseatic captains refused to reply, and by the following morning the *holks* had prepared to defend themselves. The English ships then attacked and, despite suffering the loss of many men, captured the two *holks* and took them to England as prizes.

Rhine barges outside a walled town, in a 15th-century German woodcut. Commercially the Rhine was probably the most important river, since its lower course could be navigated by many medieval seagoing vessels as far upstream as Cologne. Further up river, goods (and the occasional army) were carried by large flat-bottomed barges, with reinforced bulwarks to resist those collisions that were almost inevitable on a busy, swift-flowing stream. River navigation was itself in the hands of urban guilds of boatmen, who were largely left to their own devices by shipowners and the governing councils of Hanseatic seaports.



River operations

A feature of Hanseatic mercantile and military history that is sometimes overlooked concerns trade by river, but it was so important that the security of the main river routes featured prominently in Hanseatic concerns. Many members of the Hanse were themselves located on rivers, either near their estuaries or further

(continued on page 33)

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CAVALRY & ALLIES, 1300–75

1: Knight bearing arms of Mornewech, early 14th C

2: Nobleman in service of Holstein-Rendsburg, mid-14th C

3: German merchant, 1360–70

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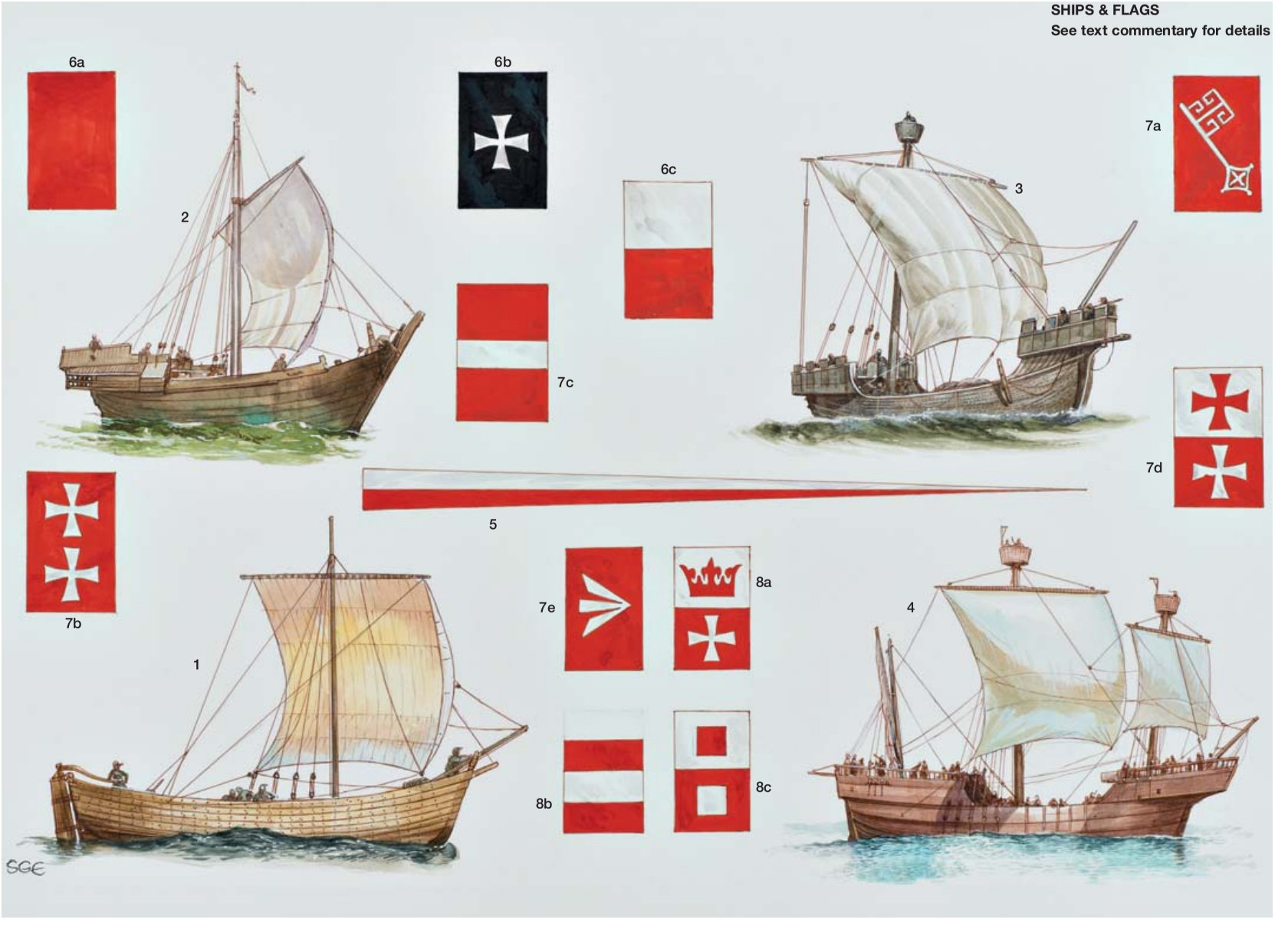

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CAVALRY & ALLIES, 1375–1425
1: Army commander, early 15th C
2: Knight of Rostock, late 14th C
3: Knight of Von Rentelen family, early 15th C

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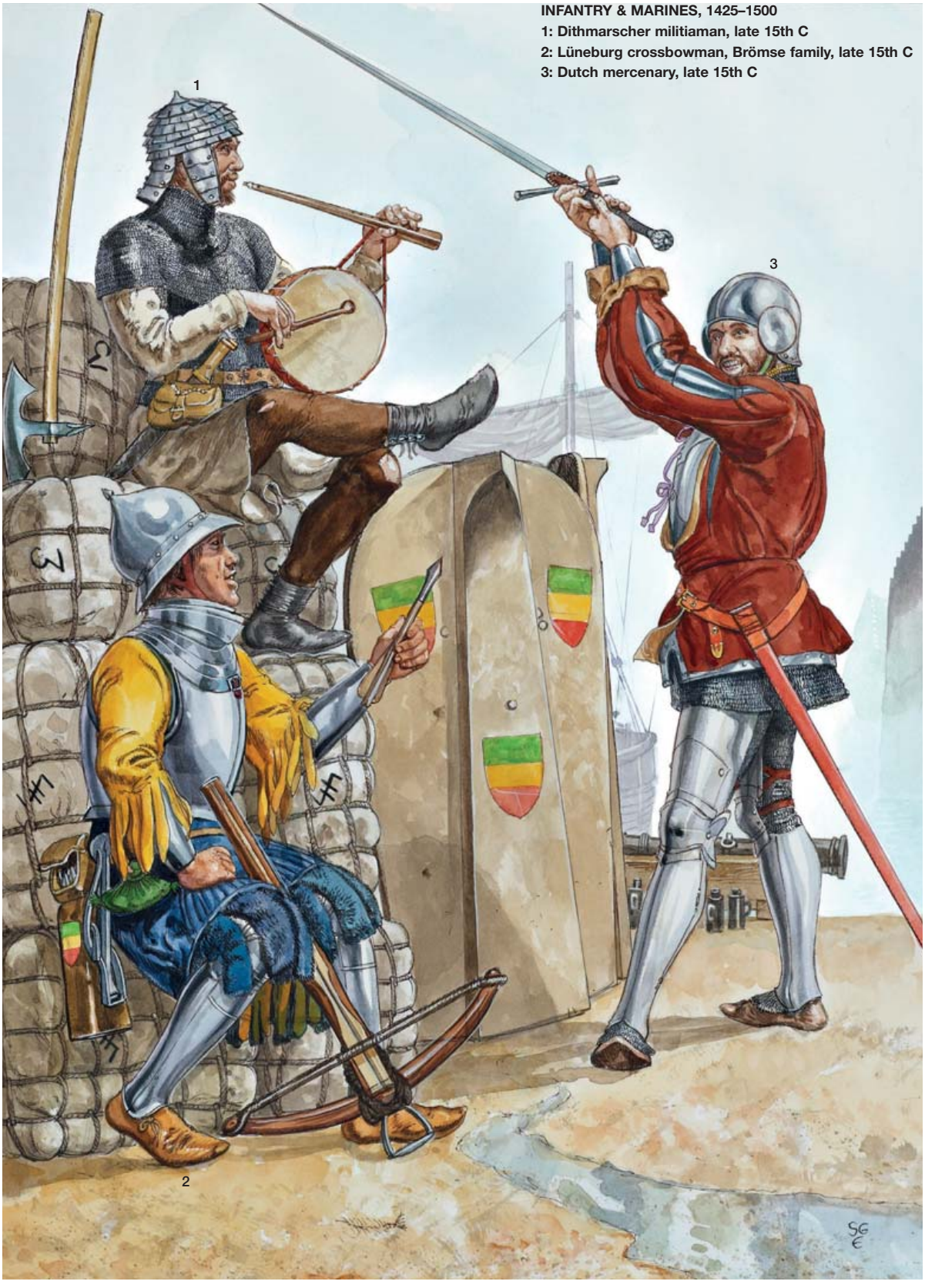

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inland. In fact river navigation was almost as important as the freedom of the open seas, and resulted in some modern-sounding regulations. These sought to prohibit the throwing of ships' ballast or rubbish overboard and thus choking already narrow channels, especially in shallow estuaries.

These major waterways were also used in wartime, and not only for the transportation of armies. In 1474 the major Hanseatic city of Cologne sent 4,000 troops to help smaller Neuss resist attack by the powerful Duke of Burgundy. Earlier in this campaign Cologne had tried to support Neuss but with less success, according to a letter written by a man in the Burgundian army:

> The Cologners sent a few people in boats down the Rhine, bringing with them a large boat loaded with wood, grease, oil, and gunpowder and, when they were near the duke's army they set fire to this boat and let it go with the water, intending that it should run up against and burn the bridge which the duke had made to cross into [an island in the Rhine]. As soon as the said bridge was burned the Cologners planned to attack the 300 lances [small cavalry units] on the island, the duke being unable to help them since the bridge would have been burned. But thanks be to God, and because of the good watch kept by the people in boats and ships that the duke had brought up the Rhine from Holland (about 50 small vessels)...., the said boat was anchored in the Rhine and it burned there without doing much harm to the bridge.[7]

SIEGE WARFARE & FIREARMS

The Hanseatic League's heartland along the southern Baltic coast had remarkably strong fortifications even before German conquest and colonization. The early medieval Slav peoples of this region built sometimes very impressive earth and timber fortifications, and as German and Danish expansion took control of the southern Baltic coast this Slavic tradition of ring-forts continued (as, for example, in the first German-Danish fortification of Lübeck). Thereafter moated earth and timber fortifications continued to be constructed; the first stone or brick structures were churches, and other buildings were usually of half-timbered construction. The 13th century would then witness significant changes in both fortification and church architecture as a magnificent tradition of building in brick developed.

Northern German fortification has attracted less interest than the romantic castles further south, or the massive fortresses of the Teutonic Knights further east. Nevertheless, the fortifications of Hanseatic towns tended to be impressive as well as strong, especially those erected from the 15th century which were designed to intimidate local

The remains of a gate through the medieval riverside walls of Cologne, leading to the Rhine harbour. (Author's photograph)

7 Douglas Smith, R., & K. De Vries, *The Artillery of the Dukes of Burgundy 1363–1477* (Woodbridge, 2005) p.178

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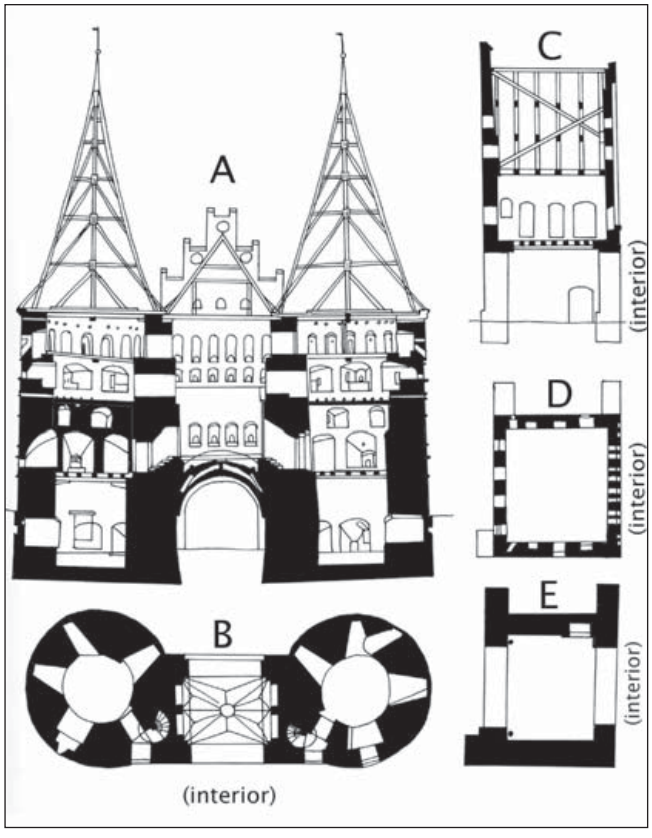

Hanseatic city gates:
(A) Sectional elevation through the *Holstentor* (Holstein Gate) of Lübeck completed in 1478, seen from the east, and showing the sagging southern tower.
(B) Plan of the lower chambers of Lübeck's *Holstentor*.
(C) Sectional elevation through the *Wassertor* (Water Gate) of Wismar, second half of the 15th century.
(D) & (E) Plans of the upper chamber, and lower chamber or gateway, in the Wismar *Wassertor*. (Author's drawings)

princes. Later medieval Hanseatic brick-building achieved an extraordinary degree of exuberant decoration, but early urban fortifications were mostly replaced or encased within later walls, towers or gates, so what is known about them comes from archaeological excavation or medieval documents.

For example, 'new' Lübeck was almost surrounded by the Trave and Wakenitz rivers. A city wall was constructed following the expulsion of the Danish garrison, with four gates: the northern *Burgtor*, the western *Holstentor*, the south-eastern *Mühlentor* (Mill Gate), plus the eastern *Hüxtor*, which was primarily a military feature to enable defenders to strike an attacker in the flank. German urban gates were often simple openings through the base of a tower. Even the *Holstentor* in Lübeck, though built as late as 1447, remains a simple 'straight through' gate, perhaps suggesting that its primary purpose was to impress rather than to resist a potential enemy (who by then would have possessed siege artillery, anyway). By contrast, the fortifications of Hanseatic cities within the Teutonic Knights' territory tended to be more genuinely military in character.

During the 15th century Hanseatic towns competed to impress foreign merchants, potential trading partners and the representatives of ruling princes. Immediately such visitors arrived they were confronted by elaborately decorated gates. This impression might be reinforced by the pomp of civic buildings, especially the *Rathaus* or town hall. Other buildings with an important military role also tended to be impressive, such as the armoury, and the granary storing food to endure a prolonged siege.

Lübeck's glory days were already passing by the mid-15th century, but the city authorities still built a splendid new *Kriegsstubembau* assembly room in the municipal war department in 1440–42. It was constructed over an open market hall and was designed by Lübeck's chief builder, Nikolaus Peck, who remodelled the massive *Burgtor* gate two years later. The even grander *Holstentor* was entirely rebuilt in 1466–78 by Helmstede, the council's new builder.

The territory that several Hanseatic cities controlled beyond their walls expanded during the medieval period, sometimes being seized to prevent it falling to neighbouring princes, or to control a local wheat harvest needed to feed the town's population. Such expansion could cause tension with the towns' neighbours, as the princes of northern Germany also wanted to control local revenue as well as the castles that defended their frontiers. In fact, the friction between some Hanseatic towns and the Counts of Holstein and Dukes of Mecklenburg might only have been kept in check by their mutual fear of Denmark.

After decades of relatively stable relations between German cities and their princely neighbours, some of the latter tried to impose their authority

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over urban centres that they regarded as being, in feudal terms, their own. This struggle lasted well into the 15th century and caused several conflicts. For example, in 1396 the Duke of Brunswick, supported by the Duke of Mecklenburg, tried to take Lüneburg by force, while the latter was assisted by Lübeck, Hamburg and several Saxon towns. Becoming increasingly aware of their vulnerability, the Hanseatic cities tried to join forces in a more structured manner. One such attempt saw the establishment of a broad *Tohopesate*, a military and political league. This failed, but leagues of the Wendish and Saxon towns were more successful, being based on agreements that military or financial support must be given to any member town that was attacked by a prince.

The *Wassertor* of Wismar, mid-15th century. (Author's photograph)

The acquisition of fortresses further afield was more strategic, for example to ensure the security of shipping routes, and might be undertaken by the Hanseatic League as a whole. The coastal castles of Skanör, Falsterbo, Helsingborg and Malmö in Skåne are a dramatic example. These were handed to the League as part of the Peace of Stralsund in 1370, and were to remain in Hanseatic hands for 15 years as compensation for the damage that the cities' trade had suffered during the war against Denmark. A fifth castle, Varberg, was added as a sort of guarantee that the Danes would not renege on the agreement. However, the Skåne castles were expensive to maintain and to garrison with mercenaries, and their possession did little to combat the scourge of piracy.

Elsewhere, Hanseatic merchants might be obliged to help defend a foreign city in return for trading privileges, as was the case in London. Here German merchants remained in possession of a prime location on the bank of the River Thames almost without a break from the 1170s to 1853, when the site was taken over to construct Cannon Street railway station. Known as the Steelyard, it was a rectangular area with 50m (165ft) of waterfront and stretching for some 125m (413ft) inland. Until the 1240s it had been called the Cologne merchants' guildhall, but as merchants from Lübeck and other Baltic cities arrived in greater numbers it came to be known as the Guildhall of the Germans. From 1475 it served as the Hanseatic headquarters in England. Not strictly speaking fortified, this Steelyard was proof against most thieves and rioters. Another very important Hanseatic community or outpost was the Peterhof, the Hanseatic *konto* or designated trading centre in the northern Russian city of Novgorod. This had its own guards, who were locked inside the Peterhof's church at night with the most valuable merchandise, while guard dogs roamed within a walled area outside.

Fortifications of Wisby on the island of Gotland, Sweden, attacked during the war between the League and Denmark in 1361–62. (Photograph: David Lindholm)

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Crossbows in siege warfare

Hanseatic forces took part in many sieges, one such being their siege of Stockholm Castle in 1395. The forces involved were agreed during a *Hansetag* on 12 July that year. Prussian towns were to send 41 squires and 30 crossbowmen, while Toruń also supplied a crossbow-maker and, like Elbing and Danzig, a crossbow windlass, four 'benders' to enable the crossbows to be strung, three crossbow strings, and ten windlass-spanned crossbows. Every crossbowman in the Prussian contingent must have 60 good-quality *getulleter* 'socketed' bolts. Furthermore, Toruń, Gdansk and Elbing must each send two kegs or barrels of bolts, those from Toruń consisting of one keg of *getullet* socketed and one keg of *gesticket* glued or tanged bolts.

Crossbows used in the Baltic region ranged from small weapons to the virtually static *bankarmbrüste* and *wallarmbrüste* that became widespread during the 15th century. A particularly interesting example with a composite bowstave 1.62m (5ft 4in) long is preserved in the Castle Museum in Quedlinburg in Saxony-Anhalt; it was captured by Quedlinburg's militia from the opposing castle of Gersdorf during the later 1330s. The bowstave is still attached to a mount made of oak from southern Lower Saxony, while the internal structure of the bowstave consists of horn and sinew covered by parchment. Even more remarkably, the loft of the castle was also found to contain a virtually unique spanning mechanism, though not associated with this particular crossbow.[8] It looks like a long wooden box, was worked with a rope, and would have had some sort of windlass.

Firearms

Small guns were certainly being used in the Baltic region by the second half of the 14th century, though the Hanseatic cities in western Germany did so earlier, and some Saxon towns at least by the 1340s. The only real advantage over crossbows offered by early small-bore guns operated by one or two men was their greater armour penetration. Otherwise they remained expensive and unreliable, though as gunpowder got cheaper and guns more accurate – with long rather than short, stubby barrels – their popularity would increase rapidly.

Removable powder chamber for a breech-loading cannon, 15th century. (Museum Holstentor, Lübeck; author's photograph)

As for cannon, a proper artillery train required a great deal of money and a well-ordered government, both of which were advantages enjoyed by the leading Hanseatic towns. They in turn were keen to prevent guns reaching their princely neighbours; this fact is reflected in a Saxon ballad of the 1340s, referring to a struggle between the Hanseatic town of Magdeburg and an alliance of princes, which ended with the latters' defeat:

> Give ear to me, you princes high,
> For I advise you faithfully
> To keep the town as your ally
> They have such good artillery
> With guns that shoot so rapidly.[9]

8 Ekdahl, S., 'The Siege Machines during the Baltic Crusades', in T. Poklewski-Koziełł (ed.), *Fasciculi Archaeologiae Historicae: Les Envahisseus des temps médiévaux et leurs armes* (Łodz, 2007) p.37
9 Rörig, F., p.164

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The first mention of a gun in Lübeck referred to a *vüerschütte* in 1352. Thereafter Lübeck led the Baltic Hanseatic cities in these matters, though not without disastrous episodes (as in 1360, when gunpowder stored in the cellars of Lübeck's town hall exploded, destroying the building). By the 15th century all major Hanseatic cities had guns, and their use became quite sophisticated. During the Duke of Burgundy's siege of Cologne in 1474–75, written messages were exchanged between the inhabitants and a newly arrived relief army, being shot over the heads of the besiegers in *fusées* (probably emptied-out incendiary missiles).

Even more significant for the League was the use of guns at sea, for which we find the first reference in 1384. The following year, Wulf Wulflam of Stralsund used six *donnerbüchsen* guns in combat with pirates. Initially their impact was deterrent rather than physical, most of them being small anti-personnel weapons such as *schotbussen* which were placed on the ship's gunwales. During the 15th century shipboard artillery became heavier, and powder and shot were normal defensive supplies carried on board large merchant ships, but guns were still not powerful enough to sink an enemy.

The manufacture of guns and gunpowder was virtually confined to larger cities, and production in Lübeck reportedly increased significantly in the 1360s during the struggle against Denmark. This industry was strategically so sensitive that in 1384 the Hanse banned the manufacture of guns for foreign customers. A year later, Rostock and its Hanseatic neighbours declared that 'in no town should guns be cast for those who are resident outside the towns'.[10] In the late 14th century, skilled gunners were offering themselves as highly paid mercenaries in several Hanseatic cities including Hamburg and Lübeck, some of these men being natives of Holstein. They (or perhaps other specialists) also made gunpowder, and by the 15th century the best paid, most prestigious and sometimes permanent job in this field was that of a city's 'gun-master'.

THE 15TH CENTURY: THE COSTS OF COMPETITION

The first half of the 15th century can be seen as the high-water mark of Hanseatic success, but in fact the League started to lose its pre-eminence from the second quarter of that century.

Hanseatic ships dominated trade between Bergen, London, Bruges and Novgorod; they regularly sailed as far south as Bourgneuf on the Bay of Biscay, as far north as Iceland, and sometimes further. In 1375 the early Hanse consisted of 77 towns, but by 1450 the League numbered over 200, including many outside Imperial territory. It had also survived the disastrous defeat of its close associates the Teutonic Knights by Poland-Lithuania early in the 15th century. Nevertheless, the costs of warfare were a cumulative drain on the resources of the Hanseatic towns.

Money was raised by whatever means possible, including taxes on imports and on basic foodstuffs, which could cause unrest within the

10 Eltis, D., 'Town and Defence in Later Medieval Germany', in *Nottingham Medieval Studies, 33* (1989) p.92

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'The Betrayal', on a panel-painting of the Passion of Christ from Lower Saxony or Westphalia, *c.*1400. As so often, the soldiers depicted provide good evidence for the appearance of infantrymen of the painter's own day. The long-sleeved padded jacket (right) is one source for our reconstruction of a hand-gunner in Plate E3. (Niedersächsisches Landesmuseum, Hanover; author's photograph)

cities. Significant sums were needed; Lübeck alone spent around 79,000 *marks* during its struggle against King Eric of Pomerania between 1426 and 1433, and in 1438–40 war against the Dutch cost the Hanse more than 22,000 *marks*. Some Hanseatic *seebefriedung* naval operations were particularly costly, Lübeck expending over 10,300 *marks* in 1447–48 alone. Later, Lübeck's treasury set aside over 20,000 *marks* for war materials during the 1470–73 conflict with England. Hanseatic fleets were naturally expensive, and during the 15th century the size of the merchant fleet has been estimated at between 800 and 1,000 vessels, with a total capacity of around 45,000 tonnes. With such a demand for ships it is hardly surprising that some Hanseatic centres attempted to ban the sale of locally built vessels to foreigners.

Such regulations had little effect, but those governing operations by Hanseatic fleets were more successful. The old system of combating piracy through targeted expeditions called *friedeschiff* had been replaced by a new strategy early in the 15th century. It now became normal for all ships sailing in the same direction to unite into substantial fleets rather than mere convoys, and these were often accompanied by specially armed vessels. Regulations were also agreed – at least by city authorities – to compel skippers to stay with such fleets.

The policy of maintaining *seebefriedung* 'peace patrols' persisted, but was not always successful. On 9 July 1456, for example, the Council of Lübeck sent one speedy but small *schnigge*, plus another boat and 50 men, against pirates who were making the waters near Travemünde unsafe, but the pirates escaped. In August 1458, five Lübeck warships sailed from the Trave under the command of two city councillors, Alf Greverade and Godeke Burmester. Manned by militiamen and mercenaries, their task was to find Danish pirates including a certain Jesse Mertensen; the operation was expected to last several weeks, but its results remain unknown.

St George, on a carved wooden screen probably made in the early 15th century. The shield resembles the complex 'pavise' shape shown in Plate F2, which seems to have been particularly associated with the Baltic region. Note the very broad, plated belt worn over the fauld below the hips. (*in situ* Church of St Nikolai, Wismar; author's photograph)

The distinction between piracy and licensed privateering was also blurred, the same ships and men often being involved. Though the Hanseatic League employed fewer privateers than some other European powers, it did so successfully during the struggles against the Dutch in 1438–41 and against the English in 1469–74. Scottish piracy resulted in the

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League imposing a trade embargo on Scotland in 1412 that was not officially lifted for a quarter of a century. However, some Hanseatic towns themselves were similarly nests of pirates; Bremen was notorious for this during the 1440s, though the freebooters operating from the city were not necessarily natives – Grote Gherd ('Big Gerry') hailed from Wismar, and other pirates from Hamburg, Lübeck or elsewhere. In return for this dubious arrangement Bremen took a third of the resident pirates' loot, and half the ransoms they raised for those of their captives who had not simply been thrown overboard.

Carriage with an armed escort, on a panel-painting of the early to mid-15th century. (*in situ* Heiligen-Geist Hospital, Lübeck; author's photograph)

Rivalry with Denmark

During the second half of the 15th century the independence of some Hanseatic cities was still threatened by ambitious neighbours. Some of these rulers also tried to act in unison, as in 1443, when the King of Denmark, the Dukes of Mecklenburg and Brunswick and the Margrave of Brandenburg discussed how they might jointly subdue the Hanseatic towns. No common action ensued, but the struggle grew in intensity over the following decades, and although the League towns usually emerged victorious the price was long-term damage – physical, economic, political and social.

The seemingly endless rivalry between the League and Denmark also flared up again, this time pitting the Union of Kalmar (Denmark, Sweden, Norway, plus their distant provinces of Finland, Iceland and, theoretically, Greenland) against the Hanse. On 11 July 1427 a Danish fleet inflicted a major defeat upon the League by capturing its entire 'Bay Salt Fleet' which carried sea salt from the Atlantic coast of France. This defeat cost the League 100,000 *nobles* (a gold coin minted in England), as well as 200 men killed and 600 captured.

'The army of *Knes* (Prince) Henry of the Obodrites', depicted carrying the medieval banners of Mecklenburg and Schwerin. The image is from the Rhyming Chronicle of Mecklenburg by Ernst von Kirchberg, c.1378. (*Mecklenburgische Reimchronik*, chap. 42, Landeshauptarchiv, Schwerin)

The County of Holstein had so often been divided, reunited and redivided that it was unpredictable as a Hanseatic ally. In 1459 the Holstein-Rendsburg family died out; King Christian I of Denmark inherited the frontier province of Schleswig, and shortly thereafter was elected Count of Holstein-Rendsburg. It seemed that all of Holstein would eventually be taken over by the Danish crown, a prospect that the Hanse anticipated with alarm. Even when Holstein was divided yet again in 1490, these concerns persisted.

The League's relations with the other major German Baltic coastal power of Mecklenburg were more straightforward. Nevertheless, while it was one of the most stable of northern German states, the 15th century saw serious clashes between Duke Magnus II of Mecklenburg and the Hanseatic port-city of Rostock, which he claimed. This culminated in conflict in 1487, pitting a single member of the Hanseatic League against a major local land power. On 17 July a Mecklenburger force of 2,000 infantry and 200 cavalry appeared outside

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'St Victor in the stocks', a panel-painting by Hermann Rode of Lübeck, 1481–82. Note that the plackart and fauld of this typical late 15th-century harness cover only the front of the abdomen, and that the rest of the cuirass is depicted as if covered with cloth. The lack of rivets suggests that it is of complete plate rather than a brigandine. (*in situ* Niguliste Church, Tallinn)

Rostock; but instead of besieging the city the Duke attacked Warnemünde to block Rostock's access to the sea, thus giving the city time to prepare and to gather as much grain from the surrounding villages as possible. The resulting 'siege' was remarkably short: Duke Magnus arrived on 9 August but marched away the following day, perhaps deciding that he was no longer strong enough when his ally, Duke Bogislav of Pomerania, took his troops home. Rostock's own chronicler claimed that the city launched a major sortie by 1,500 infantry and 150 cavalry that burned Potrems, a frontier position to the south, and then routed 500–600 Mecklenburg cavalry and wounded Duke Magnus himself.

Conflict with Castile

During the early part of the 15th century, relations between the Hanseatic League and England had generally been good, and when King Henry V hired ships to transport his army to France in 1415 these included Hanseatic vessels. However, when Hanseatic ships fought alongside the English against the French and Castilians in the English Channel, all Hanseatic vessels became potential targets for those powers. In 1421 a large Flemish and Hanseatic fleet set off from Sluys in Flanders and headed for south-west France, as it did every year. Not far from the French port of La Rochelle this fleet divided, some sailing on for Lisbon while the rest headed towards La Rochelle. A Castilian fleet then appeared under the command of Don Juan a Camporredondo. A remarkable clash between the late medieval maritime traditions of northern Europe and those of the Iberian peninsula resulted in a complete southern victory. The fighting on 30 December 1421 was brief but bloody; 40 Flemish and Hanseatic ships were captured, along with their valuable cargoes, and taken into La Rochelle to be sold.

What happened to the surviving crews remains unclear as there is no mention of ransom, so they were probably released to make their own ways home. Some German sailors certainly arrived back in Lübeck in a dangerous mood, having lost everything. It needed only a spark to ignite trouble, and this came with the arrival of a Galician-Castilian *holk* commanded by Lope Vazquez. Though the Lübeck authorities tried to protect the Spaniards the *holk* was promptly seized by 200 German sailors and 'servants' led by a Hanseatic skipper named Bernt von Münster, who had lost his own ship off La Rochelle. Bernt then sailed off with the *holk* and its cargo, causing further tension between the League and Castile.

Dutch merchants had suffered notable losses in the battle off La Rochelle, but initially tried to mediate between the Flemings and the Hanse. However, the Dutch themselves had disputes with both the League and the Flemings, which led to a major rift in which the Danish

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monarchy supported the Dutch, perhaps hoping to weaken its Hanseatic rivals. Trouble flared when the Hanseatic cities of Lübeck, Wismar, Rostock, Stralsund, Hamburg and Lüneburg found themselves in conflict with Eric of Holstein, king of the three Scandinavian states in the Union of Kalmar. The Hanseatic towns pursued their traditional strategy of blockading the narrow seas that separated Denmark from the northern kingdoms of the Union; this damaged the trade of non-Hanseatic interests, especially the Dutch, among whom anti-Hanseatic sentiment had festered since 1418. Eventually a Dutch fleet broke the Hanseatic blockade and sailed into the Baltic, where their activities disrupted Hanseatic trade.

Rivalry with the Dutch

This in turn caused mounting anti-Dutch feeling, especially in Hamburg, which sent privateers against Dutch shipping in 1430. The quarrel became so damaging to all sides that peace was agreed in May 1435, with a treaty that strongly favoured the Hanse. However, the quarrel between the Wendish Hanseatic towns and the Dutch dragged on in the Baltic, despite attempts by the Grand Master of the Teutonic Knights to mediate.

Unfortunately, this Hanseatic success over the Dutch resulted in overconfidence within the League, which still tended to see itself as the major maritime power in northern Europe; this led it to ignore, among other potential threats, the rapidly increasing economic and military power of the Dukes of Burgundy. The struggle against the Union of Kalmar from 1426 to 1435 meanwhile exposed deep differences within the Hanseatic League, primarily between its eastern and western cities, and several Hanseatic towns were already showing separatist tendencies. The Dutch may have lost the recent confrontation, but their competition with the League grew ever stronger. By the later 15th century the Dutch were pulling ahead not only in trade and numbers of ships but, significantly, in maritime technology and the reputation of their sailors.

The 'Story of St Thomas' on the late 15th-century Thomas Altar, originally in the Dominican Church in Wismar but later moved. Note at right the sallet with bevor, and the plate cuirass worn under a loose, full-sleeved jacket; compare with Plate G3. (*in situ* Church of St Nikolai, Wismar; author's photograph)

Rivalry with England

Hanseatic relations with England deteriorated when English 'merchant adventurers' tried to trade in areas that Hanseatic merchants regarded as their own. One persistent source of irritation was the Scandinavian ruler's insistence, under strong Hanseatic pressure, that English merchants could only buy Icelandic salted fish at Bergen in Norway. English fishermen from Hull and Bristol tried to break this *staple* or monopoly by sailing directly to Iceland to fish; the men of Hull had a reputation for violence, and a number of bloody incidents ensued. Elsewhere, English mariners took part in wars against the Hanseatic League that did not officially involve England. For example, the Danish fleet that captured the League's salt fleet in July 1427 included English ships and crews, perhaps serving as maritime mercenaries.

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Following the Conference of Arras, which unsuccessfully tried to bring the Hundred Years' War between England and France to an end in 1435, the English wanted to repair their now battered relationship with the Hanseatic League. The Hanse was divided over how to deal with English merchants who were encroaching on traditionally Hanseatic trading territory, especially in the Baltic; an agreement was nevertheless signed in 1437, but was not confirmed by Prussian merchants or recognized by Danzig. Confrontations continued, and though these almost always ended with Hanseatic success the League saw the English parliament's demand for a fleet of 38 ships to protect English shipping as a threat of privateering.

These fears were seemingly confirmed on 23 May 1449, when a fleet of 110 Hanseatic, Flemish and Dutch vessels – the Salt Fleet – was seized on its way from France by English privateers, and the captured property of Hanseatic merchants was treated as a legitimate prize. As a result Lübeck, which had previously been conciliatory towards the English, joined the Prussian towns in opposing them. It seems that only Hamburg remained relatively friendly towards England.

Relations deteriorated further, and in June 1468 Hanseatic ships captured an English fleet bound for the Baltic. In retaliation the English seized goods in the Hanseatic Steelyard in London, thus uniting virtually all Hanseatic towns against them. Even the distant northern waters around Iceland became more dangerous for English ships when five years of conflict broke out between England and the League in 1469. The League won a number of significant, if small-scale military victories, which English historians tend to excuse on the grounds that England had been weakened by decades of war with France. In reality they reflected Hanseatic maritime strength rather than English weakness, and one consequence was to make England more aware of its need to build up its naval resources, though this would take decades to achieve.

The Hanse also interfered in England's civil war, the Wars of the Roses. One such action was to carry the exiled King Edward IV and his supporters back to England aboard Hanseatic ships. In return Edward agreed to satisfy the Hanse's complaints when he regained the throne, resulting in the Treaty of Utrecht in September 1473. The League's centuries of experience in hard bargaining clearly stood the Germans in good stead, since the chief English representative declared: 'I would rather negotiate with all the princes in the world than with envoys of the Hanseatic council'.[11]

However, the League soon suffered a serious blow from the east when Grand Duke Ivan III 'the Great' of Muscovy conquered Novgorod in 1478. For a while it looked as if business could continue as usual, but in 1494 Ivan closed the Novgorod *kontor* and expelled the Hanseatic merchants. This struck at one of the foundations of the League's prosperity. Some historians have even seen this event as a major step in a process whereby Russia turned its back on western Europe and looked emphatically to the East – a state of affairs that would last for two centuries until Tsar Peter the Great came to the Russian throne.

11 Rörig, F., p.165

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PLATE COMMENTARIES

A: 1250–1300

A1: Knight of Mecklenburg

With his iron great helm painted yellow and bearing the black bull's head of Mecklenburg, his mail hauberk and early form of coat-of-plates, this knight is typical of his period and region. The helm is worn over and laced to a substantial quilted linen arming cap; holes in surviving helms suggest that this followed its shape, with a flap laced across to the right of the jaw. The bulging neckline of his mail coif also indicates that it was worn over thickly padded soft armour, itself worn beneath an extensive mail hauberk. The coat-of-plates is lined with vertical splints of either iron, rawhide or hardened leather, which do not go over his shoulders or extend lower than his abdomen. The banner is attached to a pole with what appears to be a polished wooden knob rather than to a lance haft, and shows an early form of the arms of Mecklenburg. The tall, 'wrap-around', leather-covered saddle does not have a crupper strap.

A2: Hamburg militia crossbowman

Some wealthier militiamen possessed the latest military equipment, but others did not. This crossbowman's old-fashioned frame-and-segment iron helmet with a broadened nasal shows him to be in the latter category. His mail coif with integral padding, and short-sleeved, short-hemmed mail hauberk are almost as archaic; note too the quilted, linen-covered cuisses extending almost to the ankles. In contrast, his crossbow is an up-to-date and powerful weapon, with a parchment-covered composite bowstave, wooden stock with a bone plate reinforcing the area around the nut, and long iron trigger bar. His wooden buckler has an iron boss and reinforcements.

Bascinet helmet with a mail aventail; German, 14th century. (Deutsches Historisches Museum, Berlin; author's photograph)

Mid- to late 14th-century dagger found in the *kogge* recovered from the River Weser. (Archäologische Landesmuseum Schleswig-Holstein, Schleswig)

A3: Armed German merchant, late 13th century

This man appears to have traded with Russia and eastern Europe, as reflected in his expensive, fur-lined woollen coat with slit sleeves. His protection includes separate additional mail sleeves worn over a short-sleeved mail shirt, which again may have originated in the East. In the background are pack-mules with loads of netted sacks across wooden saddles, and in the distance an early form of *kogge*.

B: INFANTRY & MARINES, 1300–75

B1: Frisian marine, early 14th century

The Frisians were in considerable demand as sailors and naval troops, though the relatively few pictorial sources suggest that their military equipment remained archaic and limited. For example, this man has an iron bascinet worn over a linen coif, while his armour consists of a thickly quilted, linen-covered tippet over the shoulders, plus a long quilted gambeson. His traditional weapon is a javelin with an iron head and a thickly bound handgrip. In this reconstruction, the peculiar butt of such a javelin as it appears in pictorial sources has been interpreted as light wooden flights thrust into the split end of the shaft.

B2: Marine from Stralsund, 1350–75

This urban militiaman has high-quality military equipment. The iron war-hat, with its deep, curving brim shaped to a blunt point at the front, is painted to protect against rusting. Perhaps because he is serving at sea he only wears the breastplate of a cuirass over a mail hauberk and a gambeson, with a laminated steel fauld protecting the front of his abdomen and hips. His legs are protected by mail chausses, his upper arms by hardened leather defences over the hauberk; on his padded leather gauntlets the backs of hand and fingers are covered with scales of hardened leather or bone. His weapons include a Scandinavian type of heavy crossbow, its composite stave essentially rectangular in section, and a large basilard dagger. His substantial shield is painted with the old arms of Stralsund.

B3: Sailor, mid-14th century

This seaman is carrying a message for the ship's skipper in a waterproofed leather pouch with a ribbon and seal; his polished wooden staff is a mark of his status as an official messenger. The deep-set face opening of his hood has been folded back

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in a style typical of northern Germany during this century, with its very short liripipe hanging forward. His particoloured woollen tunic, hitched up at both hips and blousing over a belt, is worn over a linen shirt, and woollen hose that lack integral feet but have loops that can be worn down beneath the insteps. He is armed with an early form of basilard dagger with an iron cross-bar pommel, wood-covered grip and short iron quillons. In the harbour in the background can be seen a man-powered crane, and, putting to sea, a single-masted *holk*.

C: CAVALRY & ALLIES, 1300–75

C1: Knight bearing the arms of Mornewech, early 14th century

This knight has halted a nobleman and a merchant at the gated bridge marking the frontier between a Hanseatic town's territory and a neighbouring feudal territory, to examine the merchant's treasure chests. During the 14th century, German armour developed characteristics that distinguished it from that of Germany's neighbours, but which came to have a profound impact upon regions to its east and north. This Baltic German knight wears an early form of bascinet with a large visor hinging upwards, but no mail aventail; instead he has a mail coif over a padded tippet. His long-sleeved mail hauberk is worn over a padded gambeson, and beneath a fabric-covered coat-of-plates and surcoat. The ailettes on his shoulders have no protective function, but, like his slung shield, display the arms of the Mornewech family. His mail chausses are secured with tight laces below the knees, and his gauntlets have three iron lames riveted across the top of the wrist and back of the hand. The straight broadsword, hidden here, would have a long grip, and the rounded tip that shows it to be a slashing rather than a thrusting blade.

C2: Nobleman in service of Holstein-Rendsburg, mid-14th century

The distinctive character of northern German military equipment appears again on this reconstruction of a nobleman from Holstein; the old-style arms of Holstein-Rendsburg (a white stylized thistle) are shown on the surcoat and horse caparison, and would be painted on his slung shield. His bascinet helmet is of an early, rather low-domed type and has a turn-buckle above the brow to which a mail flap, here shown hanging down loose, would be attached. His neck is further protected by a curved steel plate attached to the same vervelles as the mail aventail; note too the great helm slung from his saddle. A heavy, early form of coat-of-plates protects the body, and, hidden here by the saddle, its lining of iron scales reaches the scalloped hems. The outline of his ermine-lined cloak indicates the plate shoulder defences beneath. There are splinted rerebraces for the upper arms, steel couters over the elbows, and splinted vambraces which (unlike the rerebraces and couters) are worn beneath the mail haubergeon. Leather gauntlets with steel plates protect the hands. Over the legs are leather-covered, scale-lined cuisses reaching as far as the knees; domed poleyns riveted to leather-covered, quilted 'sleeves' around the knees; and leather-covered splinted greaves on the fronts of the shins, all worn over mail chausses.

C3: German merchant, 1360–70

The wealthy merchant families that played the dominant role in the affairs of the League employed large numbers of men to conduct business across much of medieval Europe, often operating in dangerous environments. While this traveller's clothing shows him to be quite prosperous, his military equipment has a 'hand-me-down' look. For example, the quilted jupon is of a type normally worn over a cuirass with full breast- and back-plates, but here it hangs somewhat loosely over a mail haubergeon only. The padded hat is turned up at the brows, and worn over an elaborately scalloped tippet-hood with a short liripipe hanging at the back. He is armed with a large basilard dagger at his hip, and a sturdy spear. The mule's pack-saddle has long loops of rope to attach two wrought-iron chests, one each side; note the complex lock mechanism visible inside the opened lid.

D: SHIPS & FLAGS

D1: Early *kogge,* late 12th & 13th century

The *kogge*'s strength, increasing cargo capacity and reliability made it the workhorse of European seaborne trade from the 12th to the early 15th century. The earliest forms had a steering oar like their Viking predecessors, though this example already has a stern rudder.

D2: *Kogge,* 14th century

This reconstruction is based upon the most complete *kogge* yet found, in river mud near Bremen; a detailed model may be seen at the Maritime Museum in Bremerhaven. Proving suitable for trade, the transport of armies, and naval warfare, the fully developed *kogge* was distinguished by its tall 'fighting' stern-castle.

D3: *Holk,* mid-15th century

During the 15th century the *holk* rivalled the *kogge* in importance, and seems to have been a larger and often more valuable vessel. No excavated examples have been certainly identified, but written and pictorial sources suggest a number of characteristics. One of these may have been a reversal of the usual method of clinker-built hull construction, with the strakes or individual rows of planking apparently overlapping upwards rather than downwards.

D4: *Kraweel,* late 15th century

The *kraweel* was the northern European version of the Portuguese and Spanish *caravel* which pioneered long-distance European voyaging in the 14th–15th century 'Age of Discoveries'. Its most distinctive feature was the laying of its hull planking edge to edge rather than overlapping, a method that came to be known as 'carvel' construction.

D5: Hanseatic pennant

In addition to town flags, ships of the League also flew from the masthead a long *Hanseatenwimpel*, white over red.

D6: 13th-century flags: (6a) Hamburg, (6b) Riga, (6c) Lübeck

D7: 14th-century flags: (7a) Bremen, (7b) Danzig, (7c) Rostock, (7d) Elbing, (7e) Stralsund

D8: 15th-century flags: (8a) Königsberg, (8b) Wismar, (8c) Stettin

E: INFANTRY & MARINES, 1375–1425

E1: North Sea sailor, *c*.1400

Several medieval manuscript illustrations from Germany, the Low Countries and northern France show sailors, river boatmen, fishermen, and even maritime travellers wearing distinctive 'foul weather' clothing. This sometimes has a striped appearance, suggesting a particular form of heavy-duty textile, possibly waterproofed with oil or wax. Only partly visible beyond the superstructure, this helmsman of a *kogge* – preparing for combat with Baltic pirates in stormy weather late in the sailing season – wears a low-domed iron helmet with a deeply sloping brim coming to a point at the front, over a loose hood with a

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long, dagged cape. He would also wear a loose-fitting thigh-length jacket and loose trousers of the same fabric. A period illustration also shows loose-fitting galoshes or overboots (thigh-length, turned down at the top, and tied below the knee), which were presumably of proofed canvas. He has a dagger and purse on his belt, and the nearby work-axe could also be used as a weapon if an enemy crew boarded.

E2: Mecklenburg mercenary, late 14th century

This man-at-arms from the Duchy of Mecklenburg has a steel bascinet with a faceted version of the 'hound-skull' visor, while the mail aventail is worn over considerable padding. A velvet-covered jupon or tunic is worn over a full-chested brigandine; note the contrasting hem embroidery, and the fashionably very broad lower sleeves which hang in scoop-shapes from the wrist. The scale-lined brigandine is worn over a mail haubergeon, above complete plate leg defences. Gauntlets might be covered in cloth except for their gadlings ('knuckle-duster' rivets) and steel scales over fingers and thumbs. The mercenary's sword has a very long leather-bound grip, a gilded pommel and slightly up- and down-turned quillons; his main weapon is an early form of halberd-like pole-arm.

E3: Marine hand-gunner, early 15th century

Northern Germans used guns at sea from a very early date. This short-barrelled 'hand cannon' is mounted on a wooden stock with an iron pintle, perhaps to be inserted into a hole in the ship's bulwarks. Note the wooden mantlet fixed against the bulwarks, with deck spikes to hold it steady and a pierced iron 'peep'. Like E1, this man also has an iron helmet (here of one-piece construction) with a deep brim, worn over a woollen caped hood. His long-sleeved quilted jupon shows horizontal stitching on the tighter forearms and from a high waistline down to the hem; over it he wears a sleeveless, loose-fitting jerkin fastened with a couple of buttons, and below the waist he has only woollen hose and soft leather shoes. At his belt are a dagger, a gourd for powder and a bullet bag; keeping his match both alight and dry in such weather would be difficult.

F: CAVALRY & ALLIES, 1375–1425

F1: Army commander, early 15th century

It was important for a military commander to be both identifiable and protected, which often entailed compromises. Hence this leader wears a richly decorated fur hat and a large gold neck chain, as well as a full steel cuirass over a padded mail tippet. The armour has the horizontally ridged breastplate characteristic of Germany during the first half of the 15th century, plus a lower fauld of horizontal lames. He wears a jupon with very full, puffed sleeves under the cuirass but over his plate arm defences; his gauntlets are plated, and his legs and feet are also protected by complete plate. His 'hand-and-a-half' sword has a long, sharply pointed thrusting blade, and he would also carry a dagger horizontally but slightly hilt-down at his right hip.

F2: Knight of Rostock, late 14th century

With his steel bascinet, hound-skull visor and mail aventail, this knight from a Hanseatic port-city is typical of Germany at this period, though his 'pavise-style' shield is more specifically Baltic. The heraldic beast on this shield seems to be an early version of the arms of Rostock, looking in the opposite direction to the beast on the modern arms. A small version of his own family arms is embroidered centrally upon the fabric covering of his brigandine. Beneath this armour he has a long-sleeved mail hauberk, which would typically hang in a point below the groin. In addition to plate arm defences, steel pauldrons are worn over the shoulders of his brigandine. Mail chausses are worn beneath plate cuisses, poleyns and greaves, but the mail covering of his long-toed shoes might be separate from the chausses. His sidearms would be a long thrusting sword with a flattened diamond-section blade, and a 'ballock' dagger hung vertically at his right hip, from a very broad sword belt with gilt and enamelled plates and a large circular buckle cover.

F3: Knight of Von Rentelen family, early 15th century

In addition to a steel war-hat the knight has a steel protection over the front of his neck and upper chest, worn beneath his cuirass, of which the breastplate again has a distinctive faceted shape. Extending from the steel pauldrons protecting his shoulders, his arm-harness culminates in steel gauntlets with leather gloves, and his leg defences and sidearms also resemble those of F2. The pennon tied to the wooden lance haft bears the arms of the Von Rentelen family.

G: INFANTRY & MARINES, 1425–1500

G1: Dithmarscher militiaman, late 15th century

Sleeveless mail *haubergeon*, probably 15th century. (Deutsches Historisches Museum, Berlin; author's photograph)

These soldiers waiting on a quayside to embark on shipboard are resting on roped bales of cargo (note the merchant's marks). The naval cannon in the background, with its removable breech-chambers, will have to be loaded onto what is normally a merchant ship before it sets sail on a military expedition.

The most characteristic weapon of the Dithmarschen appears to have been a long-hafted infantry axe, which this soldier has laid aside while he prepares to play his pipe and small drum as soon as the swordsman has finished showing off his prowess. However, a distinctively shaped hat which also became a feature of Dithmarschen was probably a later development, so this reconstruction has been given other, less specific aspects of a 'poor countryman's' military equipment. He has a thickly padded leather cap covered with iron scales, and scaled cheek- and neck-flaps. His mail tippet has been cut from a redundant mail hauberk, and is worn over a sleeveless mail

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shirt and a 'linen cuirass' or arming jerkin, with a long, loose linen shirt overall. His soft leather boots are tightened with laces around the ankle. His close-quarter weapon is a bone- or horn-handled dagger, typically worn behind a belt-pouch or purse.

G2: Lüneburg crossbowman in service of Brömse family, late 15th century

This bulbous steel war-hat, with a riveted-on brim, appears in several 15th-century northern German sources. The large laminated iron bevor buckled to the breastplate over the front of this man's neck is unusual, though the rest of his armour is straightforward; it is worn over an arming jerkin with heavy extended flaps of rough fabric. Note the steel vambraces under the long, dagged sleeves of the yellow woollen coat, and the complete plate leg defences worn above leather shoes. One waist belt carries his quiver and a 'goat's-foot' spanning lever, while a second carries the scabbard of a single-edged falchion (here hidden on his left side). The large pavise bears the arms of the Brömse family of Lüneburg.

G3: Dutch mercenary, late 15th century

Military equipment along the western frontiers of the late medieval Holy Roman Empire combined aspects of both German and French styles. Thus this mercenary from the northern provinces of the Low Countries wears a steel sallet with large ear-protecting discs, as also seen in France and England. The jacket worn mostly open over his cuirass (though with a fastening cord knotted loosely across the chest) has the slashes so fashionable in Germany. The hidden cuirass would incorporate an additional neck-piece as well as the basic breast- and back-plates, plus a rondel in front of the left shoulder, a plackart or belly-plate, and a laminated steel fauld to protect the lower torso, all worn over a mail haubergeon; arm and leg defences are of complete plate over mail. The substantial two-handed, tapering sword with which this mercenary is demonstrating his fencing skill has a flattened diamond-section blade.

H: CAVALRY & ALLIES, 1425–1500

H1: Mounted trumpeter, mid-15th century

This young musician's close-fitting mail collar has the usual semi-stiff lining, but the breast-plate of his cuirass now has a vertical rather than a horizontal keel. The overlapping lames of the fauld now form a deep, flared steel 'skirt'. Shoulder protection consists of several elements, including almost rectangular plates laced on in front of the joints. A short-sleeved mail haubergeon is worn beneath the cuirass. The fact that his lower arms are unprotected might – like his embroidered, fur-trimmed cap – reflect his primarily non-combat role. However, he carries a horizontally slung ballock dagger, and a long sword similar to that of H3. The tomb effigy of Conrad von Weinsberg (d.1446) shows the sword hilt protruding from a hole in the lowest lame of the fauld and the scabbard passed through it, no doubt attached to an interior belt. The great length of the trumpet necessitates it being turned back upon itself.

H2: Mounted crossbowman, late 15th century

Mounted crossbowmen mainly fought on foot though many were trained to shoot from horseback. Their armour was lighter than that of men-at-arms; this man wears a simple sallet over a cloth-covered but perhaps mail-lined coif; his abdomen is covered by an additional plackart and fauld, but not his lower back. The arms are protected by rerebraces, couters with extensions wrapping around inside the elbows, and vambraces, but no gauntlets. At his thigh, note the reversed 'V'-shaped strap

Quilted arming jacket to be worn beneath armour, 15th or early 16th-century German or Italian. Note the wide fan-shaped stitching, perhaps to reinforce it to take the extra weight of the flap extensions to the skirt – see Plate G2. (Museum Holstentor, Lübeck; author's photograph)

attaching his high boots to an internal belt. A narrow belt supports on his right hip both his quiver and the scabbard for a single-edged sword or straight falchion. An iron cranequin to span the powerful crossbow would probably also be carried from his belt or saddle, though this device may have been more commonly used in hunting. The buttoned leather cover for his crossbow is taken from a period painting in the Mainz Landesmuseum.

H3: Man-at-arms in service of Crispin family, end of 15th century

This man carries his visored sallet, and wears a turban-like arming cap. The most interesting feature of his armour is its non-symmetrical design, which is apparent in the shoulder defences; the cuirass is supplemented by abdomen-protecting plackart plates. The plates of the leg harness have straps behind the knees, divided to attach to the knee-covering poleyns at four points. Mail is visible at the buttocks, probably attached to an arming doublet but possibly to the mail chausses. The two-handed sword has the latest fashionable form of horizontally curved quillons. Note that the late medieval saddle no longer wraps around the rider's hips, and has cross-shaped supporting bars for each side of the cantle. The extended pennon showing family arms is nailed to a lance haft now with a shaped grip giving integral protection to the hand.

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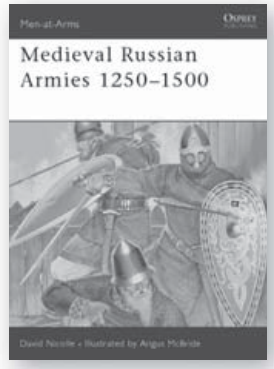

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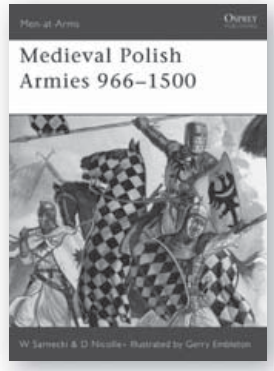

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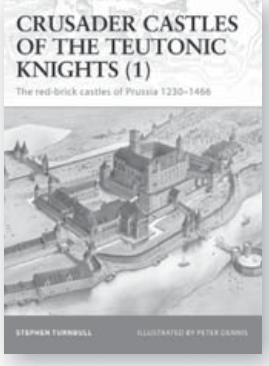

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For *Memère* – Marie-Antoinette Giroux, née Lessard,
the best mother-in-law a man could wish for
2 May 1919–6 May 2013

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Glossary

Artikelbrief	Regulations for mercenaries aboard Hanseatic ships
Auslieger	Instructions for privateers, pirates and 'peace boats'
Ballinger	(Low German *ballinghe*) Oared boat originally used by whalers, probably of French origin
Barke	(Low German *bardse*) Three-masted cargo ship, probably of English origin
Barse	Light gun
Bestückung	To equip a ship with cannon
Bojer	Small, fully rigged coastal vessel
Bombarde	Large-bore cannon
Büchsenmeister	Senior artilleryman
Busse	(Low German *büse*) Cargo ship, probably of Scandinavian origin
Drahtkanone	Cannon made of forged iron bars and rings
Ewer	Transport ship, probably of Frisian origin
Fähnlein	Pennon or small flag; also, military unit of 100 to 500 men
Falkaune, falkonett	Light field gun also used aboard ship
Friedeschiff	'Peace ship' – used for naval patrols
Geschwader	Tactical unit of ships, normally 6 to 12 vessels
Gruppe	Smallest tactical unit of ships, usually 2 to 5 vessels
Hakenbüchse	Handgun with hook beneath the barrel
Hansetag	'Hansa Day' – meeting of Hanseatic town representatives
Holk	Large transport ship, perhaps from Old German & Old English *holk*, 'cavity'
Kaper	Maritime patrol
Karacke	Carrack – three-masted ship of Mediterranean origin
Kartaune	Large-calibre gun
Kogge	Cog – merchant ship with short, broad hull; perhaps from 8th-century Frisian *coga* or *coggo*
Kraier	Maritime freighter, probably of Frisian origin
Kraweel	Caravel – ocean-going merchant ship of Iberian origin
Lastadie	Shipbuilding site, of Flemish origin
Leichter	Lighter – shallow-draft vessel to transfer goods from larger ships to shore
Likedeeler	– see *Vitalienbrüder*
Lotbusse	Gun firing iron balls
Mars	Fighting platform on mast of a ship
Pinke	Small dispatch boat
Pleyte	Coastal freighter, probably of Dutch origin
Profoss	Provost, officer in charge of discipline at sea
Rotte	Smallest military unit of mercenaries aboard ship
Schanzkleid	Protective bulwark around ship's deck
Schipper	Owner or co-owner (and sometimes captain) of a ship
Schlange	Serpent, medium-calibre gun with long barrel
Schnigge	Small, fast sailing ship, probably of Scandinavian origin
Schute	Coastal barge
Setzschiffer	Skipper or captain in service of shipowners
Steenbusse	Cannon with a forged barrel
Tohopesate	Regional association of cities in the Hanseatic League
Treidelschiff	Boat towed from shore
Vitalienbrüder	Association of pirates operating in the Baltic and North seas
Weibel, Feldweibel	Officer of mercenary troops responsible for tactics, training, and (on board) also for discipline
Wimpel	Pennant, often indicating membership of a fleet at sea